# Sons of Liberty™

# Historical Reference Guide

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## 16.0 SPECIAL SCENARIO RULES

Sons of Liberty offers the gamer his choice of three separate scenarios (battles) to play. Each of these has its own special rules to cover conditions unique to that battle. The special rules for Bunker Hill are found in Section 17, the special rules for Monmouth are found in Section 18, and the special rules for Saratoga are found in Section 19.

### 16.1 Orders of Battle

The Order of Battle (force organization) is given for each side in each battle as part of that battle's special rules. In order to condense this information, certain abbreviations were used. Many of the unit names are abbreviated. Additional abbreviations are: DIV (for division), EFF (for starting Efficiency), WEAP (for weapon), SQ. (for square), BRG (for brigade), and a number of abbreviations for weapons which are explained in the Weapon/ Range Casualty Table (Section 20.5).

### 16.2 Strategy and Tactics

While each special section contains some tips on how to play that particular battle, the following advice applies to all battles. The game is normally won by controlling Victory Squares. When a Victory Square can award points to either side, if you lose 100 men more than your opponent to take a 100 point Victory Square, you are 100 points ahead. This is because taking that square took 100 points away from your opponent and added 100 points to your score. This is a 200 point swing.

The only time in the game when Victory Squares really matter is at its end. This is where points are translated into defeat or victory. Victory points are only awarded if there are no enemy units in or adjacent to the Victory Square. If you can move one of your units adjacent to one of your opponent's Victory Squares on the last turn of the game, you can deny him those victory points.

Put your artillery on hills where the height advantage will increase their effectiveness. If the battle is ranging near your guns, protect your artillery by keeping an infantry unit with it to absorb enemy fire.

Don't let your units get too tired. Generally, when their morale drops below 40, it is time to pull them out of the line and let them rest.

When playing an ADVANCED GAME, use your leaders. In the first Operation Phase of each turn, move your leaders to the units that are to be involved in the most important combat. This will give that unit the leader bonus (see the Order of Battle) for the upcoming combat. Leader bonuses translate directly into inflicting increased casualties on you opponent.

In the second Operation Phase, move your leader to the unit that will give you the best overall Command Control. Command Control is only determined once a turn (in the Command Control Phase). Good Command Control means more Operation Points. The more Operation Points your force has, the better it will do.

Flank attacks are advantageous in melee as well as in fire. If you have a large force on an enemy's flank, try melee. If not exposed to too much danger from the after-affects, put units into column to melee.

Pull disrupted units out of enemy Zones of Control so that they can recover. When attacking, make sure you have enough OP to fire and melee.

## 17.0 BUNKER HILL

The Battle of Bunker Hill is a six turn game covering the time from 2 p.m. through 8 p.m. on June 17, 1775.

### 17.1 Special Bunker Hill Rules

The normal losses inflicted by infantry fire (see Section 20.6) are doubled. The American units which begin the game on Bunker Hill are not permitted to move during the first game turn. British units suffer one extra fatigue point cost

for each square they enter during the first three game turns. Units in the Redoubt cannot be flanked in the INTERMEDIATE and ADVANCED Games. No units are permitted to enter the town. The American Commander Stark counts as a Division Commander for purposes of determining Command Control.

American units are penalized 2 Command Control points for each square they are from their Corps Commander and 8 Command Control points for each square they are from their Division Commander.

All British units begin the first Operation Phase of the game with 10 OP. British reinforcements will not be permitted to enter the map if their entry square and the adjacent coastal squares are occupied by American units.

## 17.2 Orders of Battle

### AMERICAN BUNKER HILL ORDER OF BATTLE

| Unit # | NAME | DIV | Division LEADER BONUS | CORPS | CORPS LEADER BONUS | MEN | EFF | WEAP | SET UP OR ENTRY SQ. | TURN OF ENTRY |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | Prescott | PUTNAM | 50 | PRESCOTT | 60 | 300 | 55 | MSK | 16,9 | 1 |
| 1 | Frye | PUTNAM | 50 | PRESCOTT | 60 | 250 | 50 | MSK | 8,8 | 1 |
| 2 | Bridge | PUTNAM | 50 | PRESCOTT | 60 | 250 | 50 | MSK | 14,6 | 1 |
| 3 | Brewer | PUTNAM | 50 | PRESCOTT | 60 | 150 | 50 | MSK | 16,9 | 1 |
| 4 | Nixon | PUTNAM | 50 | PRESCOTT | 60 | 150 | 50 | MSK | 16,8 | 1 |
| 5 | Woodbrde | PUTNAM | 50 | PRESCOTT | 60 | 100 | 50 | MSK | 15,8 | 1 |
| 6 | Little | PUTNAM | 50 | PRESCOTT | 60 | 100 | 50 | MSK | 15,8 | 1 |
| 7 | Ephraim | PUTNAM | 50 | PRESCOTT | 60 | 100 | 50 | MSK | 8,6 | 1 |
| 8 | Doolttle | PUTNAM | 50 | PRESCOTT | 60 | 100 | 50 | MSK | 14,8 | 1 |
| 9 | Putnam | PUTNAM | 50 | PRESCOTT | 60 | 200 | 55 | MSK | 8,7 | 1 |
| 10 | Gerrish | PUTNAM | 50 | PRESCOTT | 60 | 300 | 50 | MSK | 7,9 | 1 |
| 11 | Stark | PUTNAM | 50 | PRESCOTT | 60 | 600 | 65 | MSK | 14,4 | 1 |
| 12 | Reed | PUTNAM | 50 | PRESCOTT | 60 | 600 | 50 | MSK | 14,5 | 1 |

ARTILLERY

| Unit# | | CORPS | EFF | #Guns | | |
|---|---|---|---|---|---|---|
| 13 | Gridley | PRESCOTT | 35 | 2 6PD | 5,8 | 1 |
| 14 | Trevett | PRESCOTT | 35 | 2 6PD | 7,8 | 1 |
| 15 | Callnder | PRESCOTT | 35 | 2 6PD | 6,8 | 1 |

### BRITISH BUNKER HILL ORDER OF BATTLE

| Unit # | NAME | DIV | Division LEADER BONUS | CORPS | CORPS LEADER BONUS | MEN | EFF | WEAP | SET UP OR ENTRY SQ. | TURN OF ENTRY |
|---|---|---|---|---|---|---|---|---|---|---|
| 16 | LT INF | PIGOT | 40 | HOWE | 60 | 295 | 90 | MSK | 20,1 | 1 |
| 17 | Grenadrs | PIGOT | 40 | HOWE | 60 | 295 | 90 | MSK | 20,2 | 1 |
| 18 | 5th FT | PIGOT | 40 | HOWE | 60 | 240 | 75 | MSK | 22,1 | 1 |
| 19 | 38th FT | PIGOT | 40 | HOWE | 60 | 240 | 75 | MSK | 22,2 | 1 |
| 20 | 43rd FT | PIGOT | 40 | HOWE | 60 | 240 | 75 | MSK | 21,2 | 1 |
| 21 | 52nd FT | PIGOT | 40 | HOWE | 60 | 240 | 75 | MSK | 21,1 | 1 |
| 22 | 47th FT | PIGOT | 40 | HOWE | 60 | 240 | 75 | MSK | 23,3 | 2 |

| Unit # | NAME | DIV | Division LEADER BONUS | CORPS | CORPS LEADER BONUS | MEN | EFF | WEAP | SET UP OR ENTRY SQ. | TURN OF ENTRY |
|---|---|---|---|---|---|---|---|---|---|---|
| 23 | 63rdL&G | PIGOT | 40 | HOWE | 60 | 180 | 90 | MSK | 23,3 | 2 |
| 24 | 1/M L&G | PIGOT | 40 | HOWE | 60 | 140 | 90 | MSK | 23,3 | 2 |
| 25 | 2/M L&G | PIGOT | 40 | HOWE | 60 | 140 | 90 | MSK | 23,3 | 2 |
| 26 | 63rd FT | CLINTON | 40 | HOWE | 60 | 200 | 75 | MSK | 21,7 | 3 |
| 27 | 2/MARINE | CLINTON | 40 | HOWE | 60 | 200 | 75 | MSK | 21,7 | 3 |

ARTILLERY

| Unit # | | CORPS | EFF | # Guns | | |
|---|---|---|---|---|---|---|
| 28 | HOWE A | HOWE | 75 | 2 6PD | 21,7 | 3 |
| 29 | HOWE B | HOWE | 75 | 2 6PD | 21,7 | 3 |
| 30 | HOWE C | HOWE | 75 | 2 6PD | 21,7 | 3 |

## 17.3 Bunker Hill Victory Squares

Victory points are awarded for the following squares:

| American | British |
|---|---|
| 8,8 = 300 pts | 0,9 = 500 pts |
| 14,5 = 150 pts | 8,8 = 300 pts |
| 16,9 = 150 pts | 14,5 = 150 pts |
| 23,3 = 500 pts | 16,9 = 150 pts |

## 17.4 Bunker Hill Strategy and Tactics

### —American

Don't move too many units out of their starting entrenchments. These are valuable defensive positions. A good strategy is to have Reed, Prescott, Brewer, and Nixon stay put while reinforcing the southern flank with Woodbridge, Doolittle, and Stark.

Don't commit Stark or Bridge until you're sure the British aren't just trying to draw you out of your entrenchments. By the end of the first turn, if at least half of the British units are south of Y row 8, the British have committed to a southern attack. You can then afford to move Stark and Bridge out.

Reed is a powerful unit and can hold the fence on his own for a turn or so, even against overwhelming odds. Don't withdraw this unit too soon.

Stark is considered a Divisional Commander who helps Putnam for Command Control purposes. Use him to keep the Redoubt area controlled (square 15,9 is a good place for him). This frees Putnam to hold the line to the south of Breed's Hill.

One final note, the British are outnumbered, but they are much more powerful than the Americans. Don't expect your units to be able to stand up to them in the open. Slowly give ground, but make the British pay for it.

### —British

If the Americans are in the fence and breastworks (on Breeds Hill) in force, your only practical option is to swing to the south of Breeds Hill. If you assault the fence or breastworks while they are even moderately defended, you will take devastating losses.

Consider sending five units south on the first turn, leaving one unit on the road near the swamp to guard your reinforcement square. Unless the American player moves to stop you, you should have all five of these units south of Y row 9. If the American player does move a unit out to stop you, you have the strength to destroy that unit and move on.

Be careful not to move adjacent to Reed or Stark without a large force. They can cripple a unit with one volley. Do not move adjacent to a breastworks or the redoubt until you are ready to overrun it by attacking it from at least four sides with units ordered to melee. Push the American units back behind Breeds Hill being careful not to overtire your units. You should be ready to begin overrunning Breeds Hill about the time that your artillery arrives.

Try to attack the Redoubt through its

flanks. You won't get a flank modifier, but his fire against you will be greatly reduced. After you take the Redoubt, you should be able to clear the Americans off of Breeds Hill. At this point you have to decide whether to go after the fence, Bunker Hill, or both. This decision will largely depend on how well you have done up to this point.

Try to have at least one unit adjacent to the American Player's Victory Squares at the end of the game.

## 18.0 MONMOUTH

The Battle of Monmouth game is played in 9 turns. It represents the time from 11 a.m. until 8 p.m. on June 28, 1778.

### 18.1 Special Monmouth Rules

The following British units use American fire charts for fire into and out of the village and woods and American woods OP movement costs: 1/1 LT and 2/1 LT. Wing Commanders function as Corps Commanders for Command Control purposes. British Brigade Leaders act as Division Leaders and British Division Leaders act as Corps leaders for Command Control purposes. The American player may choose to bring on the optional Morgan unit(#0). Choosing this option will give the British player 100 Victory points.

### 18.2 Orders of Battle

#### AMERICAN MONMOUTH ORDER OF BATTLE

| Unit # | NAME | DIV | Division LEADER BONUS | WING | WING LEADER BONUS | MEN | EFF | WEAP | SET UP OR ENTRY SQ. | TURN OF ENTRY [1] |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | MORGAN | | | Lee | 40 | 500 | 75 | RFL | 0,10 | 3 |
| 1 | MNTH MI | Dickinsn | 10 | Lee | 40 | 400 | 50 | MSK | 47,6 | 1 |
| 2 | MIDD MI | Dickinsn | 10 | Lee | 40 | 200 | 50 | MSK | 46,6 | 1 |
| 3 | Hunt MI | Dickinsn | 10 | Lee | 40 | 200 | 50 | MSK | 46,6 | 1 |
| 4 | Scott A | Lafaytte | 30 | Lee | 40 | 500 | 60 | MSK | 44,16 | 1 |
| 5 | Scott B | Lafaytte | 30 | Lee | 40 | 500 | 60 | MSK | 44,17 | 1 |
| 6 | Scott C | Lafaytte | 30 | Lee | 40 | 440 | 65 | MSK | 44,17 | 1 |
| 7 | Wayne A | Lafaytte | 30 | Lee | 40 | 350 | 70 | MSK | 45,17 | 1 |
| 8 | Wayne B | Lafaytte | 30 | Lee | 40 | 300 | 80 | MSK | 45,18 | 1 |
| 9 | Wayne C | Lafaytte | 30 | Lee | 40 | 350 | 60 | MSK | 45,19 | 1 |
| 10 | 1 N.J. | Maxwell | 20 | Lee | 40 | 300 | 60 | MSK | 44,14 | 1 |
| 11 | 2 N.J. | Maxwell | 20 | Lee | 40 | 300 | 60 | MSK | 44,14 | 1 |
| 12 | 3-4 N.J. | Maxwell | 20 | Lee | 40 | 400 | 60 | MSK | 44,15 | 1 |
| 13 | 9 PA-JKN | Wayne | 40 | Lee | 40 | 400 | 65 | MSK | 46,13 | 1 |
| 14 | Scott | Wayne | 40 | Lee | 40 | 400 | 60 | MSK | 46,14 | 1 |
| 15 | Varn | Wayne | 40 | Lee | 40 | 400 | 60 | MSK | 46,15 | 1 |
| 16 | 1Penn | | | Stirling | 60 | 352 | 60 | MSK | 0,10 | 5 |
| 17 | 2Penn | | | Stirling | 60 | 401 | 60 | MSK | 0,10 | 5 |
| 18 | 3Penn | | | Stirling | 60 | 343 | 65 | MSK | 0,10 | 5 |
| 19 | Glover | | | Stirling | 60 | 512 | 60 | MSK | 0,10 | 5 |
| 20 | Learned | | | Stirling | 60 | 294 | 60 | MSK | 0,10 | 5 |
| 21 | Pattersn | | | Stirling | 60 | 357 | 60 | MSK | 0,10 | 8 |
| 22 | Woodford | | | Greene | 60 | 385 | 60 | MSK | 0,10 | 6 |
| 23 | N.C. | | | Greene | 60 | 369 | 60 | MSK | 0,10 | 6 |
| 24 | Poor | | | Greene | 60 | 639 | 65 | MSK | 0,10 | 6 |
| 25 | Huntngtn | | | Greene | 60 | 509 | 60 | MSK | 0,10 | 6 |

| Unit # | NAME | DIV | Division LEADER BONUS | WING | WING LEADER BONUS | MEN | EFF | SET UP OR ENTRY WEAP | SQ. | TURN OF ENTRY |
|---|---|---|---|---|---|---|---|---|---|---|
| 26 | 1 MD | | | Smllwood | 10 | 657 | 70 | MSK | 0,10 | 8 |
| 27 | 2 MD | | | Smllwood | 10 | 529 | 70 | MSK | 0,10 | 8 |
| 28 | Muhlnbrg | | | Smllwood | 10 | 575 | 60 | MSK | 0,10 | 8 |
| 29 | Weedon | | | Smllwood | 10 | 449 | 60 | MSK | 0,10 | 7 |

| Unit # | | WING | EFF | ARTILLERY # Guns | | |
|---|---|---|---|---|---|---|
| 30 | Lee A | Lee | 60 | 4 6PD | 46,14 | 1 |
| 31 | Lee B | Lee | 60 | 4 6PD | 45,18 | 1 |
| 32 | Lee C | Lee | 60 | 4 3PD | 44,15 | 1 |
| 33 | Stirl.A | Stirling | 60 | 4 3PD | 0,10 | 5 |
| 34 | Stirl.B | Stirling | 60 | 2 6PD | 0,10 | 6 |
| 35 | Greene A | Greene | 60 | 4 3PD | 0,10 | 6 |
| 36 | Greene B | Greene | 60 | 2 6PD | 0,10 | 6 |

## BRITISH MONMOUTH ORDER OF BATTLE

| Unit # | NAME | BRG | Brigade LEADER BONUS | DIV | Division LEADER BONUS | MEN | EFF | SET UP OR ENTRY WEAP | SQ. | TURN OF ENTRY |
|---|---|---|---|---|---|---|---|---|---|---|
| 37 | 16LT.DRG | | | Cornwallis | 70 | 305 | 75 | CRB | 50,13 | 1 |
| 38 | Q.A.RNGR | | | Cornwallis | 70 | 385 | 65 | CRB | 52,10 | 1 |
| 39 | 1/1 LT | | | Cornwallis | 70 | 350 | 85 | MSK | 49,16 | 1 |
| 40 | 2/1 LT | | | Cornwallis | 70 | 350 | 85 | MSK | 49,16 | 1 |
| 41 | 1/1/BR.G | | | Cornwallis | 70 | 290 | 99 | MSK | 49,18 | 1 |
| 42 | 2/1/BR.G | | | Cornwallis | 70 | 310 | 99 | MSK | 49,18 | 1 |
| 43 | 1/2/BR.G | | | Cornwallis | 70 | 300 | 99 | MSK | 49,17 | 1 |
| 44 | 2/2/BR.G | | | Cornwallis | 70 | 300 | 99 | MSK | 49,17 | 1 |
| 45 | 1 Hess.G | Loos | 30 | Cornwallis | 70 | 330 | 85 | MSK | 51,21 | 1 |
| 46 | 2 Hess.G | Loos | 30 | Cornwallis | 70 | 400 | 85 | MSK | 52,22 | 1 |
| 47 | 3 Hess.G | Loos | 30 | Cornwallis | 70 | 270 | 85 | MSK | 53,22 | 1 |
| 48 | 15/3 FT | Grey | 30 | Cornwallis | 70 | 300 | 75 | MSK | 52,16 | 3 |
| 49 | 17/3 FT | Grey | 30 | Cornwallis | 70 | 300 | 75 | MSK | 52,16 | 3 |
| 50 | 1/42/3FT | Grey | 30 | Cornwallis | 70 | 305 | 75 | MSK | 52,16 | 3 |
| 51 | 2/42/3FT | Grey | 30 | Cornwallis | 70 | 300 | 75 | MSK | 52,16 | 3 |
| 52 | 44/3 FT | Grey | 30 | Cornwallis | 70 | 310 | 75 | MSK | 52,16 | 3 |
| 53 | 33/4 FT | Agnew | 30 | Cornwallis | 70 | 350 | 85 | MSK | 52,16 | 3 |
| 54 | 37/4 FT | Agnew | 30 | Cornwallis | 70 | 350 | 75 | MSK | 52,16 | 3 |
| 55 | 46/4 FT | Agnew | 30 | Cornwallis | 70 | 300 | 75 | MSK | 52,16 | 3 |
| 56 | 64/4 FT | Agnew | 30 | Cornwallis | 70 | 410 | 75 | MSK | 53,16 | 3 |
| 57 | 7/5 R.F | Leslie | 30 | Cornwallis | 70 | 300 | 75 | MSK | 53,16 | 3 |
| 58 | 26/5 FT | Leslie | 30 | Cornwallis | 70 | 290 | 75 | MSK | 53,16 | 3 |
| 59 | 63/5 FT | Leslie | 30 | Cornwallis | 70 | 300 | 75 | MSK | 53,16 | 3 |
| 60 | 1/BR.GDS | | | Cornwallis | 70 | 375 | 85 | MSK | 53,16 | 3 |
| 61 | 2/BR.GDS | | | Cornwallis | 70 | 400 | 85 | MSK | 53,16 | 3 |

| Unit # | | CORPS | EFF | ARTILLERY # Guns | | |
|---|---|---|---|---|---|---|
| 62 | A/1 DIV | Cornwallis | 75 | 2 3PD | 49,19 | 1 |
| 63 | B/1 DIV | Cornwallis | 75 | 4 6PD | 53,16 | 3 |
| 64 | C/1 DIV | Cornwallis | 75 | 4 6PD | 53,16 | 3 |
| 65 | D/1 DIV | Cornwallis | 75 | 4 6PD | 53,15 | 3 |
| 66 | E/1 DIV | Cornwallis | 75 | 2 12P | 53,15 | 3 |

### 18.3 Monmouth Victory Squares

Victory points are awarded for the following squares:

| American | British |
|---|---|
| 21,10 = 100 pts | 0,10 = 200 pts |
| 21,18 = 100 pts | 6,27 = 200 pts |
| 41,11 = 200 pts | 9,13 = 200 pts |
| 47,21 = 1000 pts | 12,17 = 200 pts |
| | 15,6 = 200 pts |
| | 21,10 = 100 pts |
| | 21,18 = 100 pts |
| | 33,3 = 200 pts |

### 18.4 Monmouth Strategy and Tactics

#### —American

Attack immediately. Don't let your beginning advantage go to waste. Move all of your artillery to within three squares of the British line and fire. Consider concentrating an infantry assault against his artillery unit at the onset.

Be prepared to begin retreating at the end of the second turn. You will have to keep ahead of the arriving British reinforcements. Pull all the way back to the woods on the hill in front of the hedge. If losses are heavy, pull back to the hedge. You may have to sacrifice some rear guard units to slow the British advance.

Have one division north of the creek to stall his progress and use the woods. Your units have an advantage in the woods.

When your reinforcements arrive, try to push the British off at least one of the center objectives and deny him the points for both.

It is often a good idea to put a 6PD artillery unit on the hill on the southwest part of the map to take advantage of its height advantage.

#### —British

Be cautious for the first few turns while the Americans outnumber you, and then get your units in a position to attack on turn 3. Use your cavalry to flank the Americans and cut off their retreat.

When your reinforcements come on, charge hard after the Americans and chase him to the objective squares as fast as you can. Your time to attack is after your reinforcements arrive and before the bulk of the American units appear.

Once the American reinforcements arrive, you need to switch to the defense. You want to have your objectives in hand by this time. Make a solid line to hold all of your objectives.

Use your light units to scout the woods for hidden American units. These Americans could get into your rear area and capture Victory Squares if you bypass them.

## 19.0 SARATOGA

The Battle of Saratoga is played in seven turns which represent the time from 1 p.m. until 8 p.m. on September 19, 1777.

### 19.1 Special Saratoga Rules

Units cannot move through creeks. The three bridges on the X coordinate 44 row can be rebuilt by a British unit which is adjacent to them at end of the turn. If British unit #55 (47th Batt) is routed, then British units will receive less ammunition in subsequent turns and the American player will receive 500 Victory points.

The following British units use the American fire charts for firing into and out of woods and pay American OP costs for woods movement: LT INF, Rangers, Q.L.Rngr, K.L.Amer, Canadian, Iroquois, and Brns Jgr.

American Division Commanders act as Corps Commanders and Brigade Commanders act as Division Commanders for Command Control purposes.

The British Army Commander acts as a Corps Commander and the Corps Commander act as Division Commanders for Command Control purposes.

At the beginning of the game, the

American player secretly chooses one of the following options:

—1. Gates' units may not move unless British move south of Y row 24. British lose 200 Victory points if this option is chosen.

—2. Gates' units may move as soon as the Victory score is -450 or less or if the British move south of y row 24. No additional victory points are awarded to either side if this option is chosen.

—3. Gates' units are immediately available. Chosing this option costs the Americans 600 Victory Points.

## 19.2 Orders of Battle

### AMERICAN SARATOGA ORDER OF BATTLE

| Unit # | NAME | BRG | Brigade LEADER BONUS | DIV | Division LEADER BONUS | MEN | EFF | WEAP | SET UP OR ENTRY SQ. | TURN OF ENTRY |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3rd Mass | Nixon | 30 | Gates | 20 | 200 | 65 | MSK | 29,35 | 1 |
| 1 | 5th Mass | Nixon | 30 | Gates | 20 | 200 | 60 | MSK | 30,35 | 1 |
| 2 | 6th Mass | Nixon | 30 | Gates | 20 | 200 | 60 | MSK | 31,36 | 1 |
| 3 | 7th Mass | Nixon | 30 | Gates | 20 | 200 | 60 | MSK | 32,36 | 1 |
| 4 | 10th Mass | Pattersn | 30 | Gates | 20 | 200 | 65 | MSK | 33,37 | 1 |
| 5 | 11th Mass | Pattersn | 30 | Gates | 20 | 200 | 70 | MSK | 34,37 | 1 |
| 6 | 12th Mass | Pattersn | 30 | Gates | 20 | 200 | 60 | MSK | 35,38 | 1 |
| 7 | 14th Mass | Pattersn | 30 | Gates | 20 | 200 | 65 | MSK | 36,39 | 1 |
| 8 | 1st Mass | Glover | 60 | Gates | 20 | 200 | 60 | MSK | 36,40 | 1 |
| 9 | 4th Mass | Glover | 60 | Gates | 20 | 200 | 65 | MSK | 37,41 | 1 |
| 10 | 13th Mass | Glover | 60 | Gates | 20 | 200 | 65 | MSK | 37,42 | 1 |
| 11 | 15th Mass | Glover | 60 | Gates | 20 | 200 | 60 | MSK | 37,43 | 1 |
| 12 | 2 AL MI | Glover | 60 | Gates | 20 | 400 | 55 | MSK | 41,43 | 1 |
| 13 | 17 AL MI | Glover | 60 | Gates | 20 | 400 | 55 | MSK | 42,43 | 1 |
| 14 | DU&UL MI | Glover | 60 | Gates | 20 | 400 | 55 | MSK | 44,44 | 1 |
| 15 | 2nd N.Y. | Poor | 60 | Arnold | 70 | 200 | 70 | MSK | 11,23 | 1 |
| 16 | 4th N.Y. | Poor | 60 | Arnold | 70 | 200 | 70 | MSK | 11,24 | 1 |
| 17 | 1st N.H. | Poor | 60 | Arnold | 70 | 200 | 65 | MSK | 7,13 | 1 |
| 18 | 2nd N.H. | Poor | 60 | Arnold | 70 | 200 | 60 | MSK | 11,20 | 1 |
| 19 | 3rd N.H. | Poor | 60 | Arnold | 70 | 200 | 65 | MSK | 7,14 | 1 |
| 20 | Cook MI | Poor | 60 | Arnold | 70 | 200 | 65 | MSK | 11,21 | 1 |
| 21 | Latmr MI | Poor | 60 | Arnold | 70 | 200 | 55 | MSK | 11,22 | 1 |
| 22 | 11th VA | Morgan | 70 | Arnold | 70 | 350 | 75 | RFL | 14,12 | 1 |
| 23 | Dearbn | Morgan | 70 | Arnold | 70 | 300 | 70 | RFL | 15,12 | 1 |
| 24 | 1 N.Y. MI | Broeck | 10 | Arnold | 70 | 200 | 50 | MSK | 41,45 | 1 |
| 25 | 2 N.Y. MI | Broeck | 10 | Arnold | 70 | 200 | 50 | MSK | 42,45 | 1 |
| 26 | 3 N.Y. MI | Broeck | 10 | Arnold | 70 | 200 | 50 | MSK | 43,45 | 1 |
| 27 | 2nd Mass | Learned | 30 | Arnold | 70 | 200 | 70 | MSk | 20,28 | 1 |
| 28 | 8th Mass | Learned | 30 | Arnold | 70 | 200 | 65 | MSK | 20,29 | 1 |
| 29 | 9th Mass | Learned | 30 | Arnold | 70 | 200 | 60 | MSK | 20,30 | 1 |
| 30 | 3rd N.Y. | Learned | 30 | Arnold | 70 | 200 | 65 | MSK | 21,30 | 1 |

#### ARTILLERY

| Unit # | | CORPS | EFF | # Guns | | |
|---|---|---|---|---|---|---|
| 31 | Battery A | Gates | 50 | 4 6PD | 29,35 | 1 |
| 32 | Battery B | Gates | 50 | 4 6PD | 30,35 | 1 |
| 33 | Battery C | Gates | 50 | 4 6PD | 31,36 | 1 |
| 34 | Battery D | Gates | 50 | 5 3PD | 34,37 | 1 |
| 35 | Battery E | Gates | 50 | 5 3PD | 36,39 | 1 |

## BRITISH SARATOGA ORDER OF BATTLE

| Unit # | NAME | CORP | Corps LEADER BONUS | ARMY | Army LEADER BONUS | MEN | EFF | WEAP | SET UP OR ENTRY SQ. | TURN OF ENTRY |
|---|---|---|---|---|---|---|---|---|---|---|
| 36 | 24th Bat | Fraser | 60 | Burgoyne | 30 | 300 | 80 | MSK | 4,0 | 3 |
| 37 | LT INF | Fraser | 60 | Burgoyne | 30 | 300 | 80 | MSK | 3,0 | 3 |
| 38 | Grenadrs | Fraser | 60 | Burgoyne | 30 | 300 | 80 | MSK | 5,0 | 3 |
| 39 | Rangers | Fraser | 60 | Burgoyne | 30 | 150 | 85 | RFL | 2,0 | 3 |
| 40 | Q.L.Rngr | Fraser | 60 | Burgoyne | 30 | 200 | 65 | MSK | 3,0 | 1 |
| 41 | K.L.AMER | Fraser | 60 | Burgoyne | 30 | 200 | 70 | MSK | 2,0 | 1 |
| 42 | Canadian | Fraser | 60 | Burgoyne | 30 | 200 | 70 | MSK | 3,1 | 1 |
| 43 | Iroquois | Fraser | 60 | Burgoyne | 30 | 200 | 80 | MSK | 2,1 | 1 |
| 44 | 9th Batt | Hamilton | 60 | Burgoyne | 30 | 250 | 75 | MSK | 15,7 | 1 |
| 45 | 20th Bat | Hamilton | 60 | Burgoyne | 30 | 250 | 85 | MSK | 14,9 | 1 |
| 46 | 21st Bat | Hamilton | 60 | Burgoyne | 30 | 250 | 75 | MSK | 16,9 | 1 |
| 47 | 62nd Bat | Hamilton | 60 | Burgoyne | 30 | 350 | 75 | MSK | 15,9 | 1 |
| 48 | Rhetz | Riedesel | 60 | Burgoyne | 30 | 400 | 75 | MSK | 44,8 | 1 |
| 49 | Specht | Riedesel | 60 | Burgoyne | 30 | 350 | 80 | MSK | 44,7 | 1 |
| 50 | Riedesel | Riedesel | 60 | Burgoyne | 30 | 400 | 80 | MSK | 44,6 | 1 |
| 51 | Brnswick | Breyman | 30 | Burgoyne | 30 | 300 | 75 | MSK | 8,0 | 4 |
| 52 | Brns Jgr | Breyman | 30 | Burgoyne | 30 | 200 | 75 | RFL | 8,0 | 4 |
| 53 | 1Brey GR | Breyman | 30 | Burgoyne | 30 | 250 | 80 | MSK | 8,0 | 4 |
| 54 | 2Brey GR | Breyman | 30 | Burgoyne | 30 | 250 | 80 | MSK | 8,0 | 4 |
| 55 | 47th Bat | Phillip | 30 | Burgoyne | 30 | 200 | 70 | MSK | 44,0 | 4 |
| 56 | Hesse-HA | Phillip | 30 | Burgoyne | 30 | 300 | 70 | MSK | 44,0 | 4 |

**ARTILLERY**

| Unit # | ARMY | EFF | # Guns | | |
|---|---|---|---|---|---|
| 57 RES A | Burgoyne | 75 | 4 6PD | 8,0 | 4 |
| 58 RES B | Burgoyne | 75 | 4 6PD | 8,0 | 4 |
| 59 Center A | Burgoyne | 75 | 4 6PD | 15,6 | 1 |
| 60 Center B | Burgoyne | 75 | 4 3PD | 15,5 | 1 |
| 61 Left | Burgoyne | 75 | 6 6PD | 44,5 | 1 |
| 62 PARK A | Burgoyne | 75 | 3 24D | 44,0 | 4 |
| 63 PARK B | Burgoyne | 75 | 4 12D | 44,0 | 4 |
| 64 PARK C | Burgoyne | 75 | 4 6PD | 44,0 | 4 |
| 65 PARK D | Burgoyne | 75 | 4 MTR | 4,0 | 4 |

### 19.3 Saratoga Victory Squares

Victory points are awarded for the following squares:

| American | British |
|---|---|
| 6,11 = 200 pts | 6,11 = 200 pts |
| 10,8 = 200 pts | 10,8 = 200 pts |
| 13,12 = 200 pts | 10,16 = 300 pts |
| 15,5 = 300 pts | 13,12 = 200 pts |
| 15,9 = 200 pts | 16,39 = 500 pts |
| 44,0 = 500 pts | 29,37 = 500 pts |
| | 42,45 = 500 pts |

### 19.4 Saratoga Strategy and Tactics

**—American**

What you do depends on which of the options you choose.

— If you choose option 1:

Try to push the British north of the ravine and into the woods centered on 7,2. The British will slowly push you back, but the longer you can keep the fight in the woods, the better your chance of holding two Victory Squares at game's end.

— If you choose option 2:

You must be aggressive at the onset. Try to take three of the four objectives around the woods in 10,10. Deny the British the 15,9 objective. This will allow Gates to move up the road on turn 2.

You should have at least two objectives by the end of the game and should have control of all four center objectives.

— If you choose option 3 :

Push the British as far north as you can early on and keep pushing until you have taken the bridge at 15,5. If you don't hold all four center objective squares, you are in danger of losing the game.

Overall, unless you need them to attack in option 2, send the 1st and 3rd N.H. into the woods at 5,5 and 5,6 to slow the progress of the British skirmishers. Keep your rifles at a range of 2 from the enemy units.

Watch out for the British artillery. He has artillery immediately and you don't so be careful how you move in open terrain. Remember that except in the BASIC GAME, he can move his artillery up to you and fire it.

If you manage to push the British across the ravine, set up a defensive line on its south side.

**—British**

If you are playing with hidden units, you won't know which option the American Player has chosen until you see some of Gates' units move.

Hold the hill at 15,9 if at all possible. It provides Victory points and is an excellent place to put artillery. From here, artillery can fire on the American rifle units and support attacks against two objectives.

Close with his rifle units and attack them from adjacent squares. His rifles aren't much better at one square range than they are at two square range. Your muskets are much better when they're adjacent. If you don't drive off the rifle units, they will pick your units to death throughout the game.

Don't let the American units advance too far into the woods near where your reinforcements enter or you will be trying to dig them out for the rest of the game.

Hold the hill, try to hold the road at 10,4, and hold the woods as far south as you can. Square 8,3 should be sufficient.

Remember that your artillery gives you an advantage in the open while your opponent has an advantage in the woods.

Unless you are prepared to take a big gamble, don't move down the road by the river. This could activate Gates' units and bring them into the game at no Victory point cost to the Americans.

## 20.0 TABLES AND EXAMPLES

### 20.1 Command Control

Determining Command Control is a multi-stepped process. These steps include determining the distance from a unit to its leaders and determining its leaders' Command Control Effect.

#### 20.11 Distance from Leader and Base Number

For every square a unit is away from its Divisional Commander, it is penalized 5 points up to a maximum penalty of 35 points (7 squares). For every square a unit is away from its Corps Commander, it is penalized 1 point up to a maximum of 10 points (10 squares).

Units which are in the same square as their Corps Commander (or adjacent to that square) are not penalized for being away from their Division Commander.

The total number of points a unit is penalized is divided into 28. The number which results from this division (the quotient) will be modified as necessary to provide a Base Command Control Number between 0.5 and 1.5. Numbers below 0.5 will be modified up to 0.5. Numbers above 1.5 will be modified down to 1.5. Numbers between 0.5 and 1.5 will be rounded down as needed to produce a number with only one decimal point (EXAMPLES: 1.27 would be rounded down to 1.2, 1.326 would be rounded down to 1.3., and 0.599999 would be rounded down to 0.5).

#### 20.12 Leader Bonuses and Command Conrtol Effect

Each leader has a base Bonus rating which is stated in the Order of Battle. At the beginning of each turn, a random number

from 1 to 64 is generated (this is affected by level of play, Main Menu option H) and is added to each leader's bonus (the random numbers may be different for different leaders). The results of this are announced during the Command Control Phase at the beginning of each turn when each leader is given a rating ranging from Confused!!! (worst) to Confident (best). This total of bonus plus random is used to determine each leader's Command Control Effect as follows:

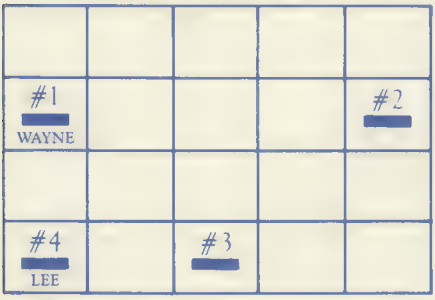
| Random Plus Bonus | Effect | Message Given on Screen |
|---|---|---|
| 0-50 | -0.3 | Leader Confused!!! |
| 51-71 | -0.2 | Leader Indecisive!! |
| 71-90 | -0.1 | Leader Cautious! |
| 91+ | 0 | Leader Confident |

## 20.13 Determining Final Command Control

A unit's leaders' Command Control Effects are subtracted from its Base Command Control Number to arrive at its Final Command Control rating. The following example illustrates this procedure. Note that Command Control is only determined once per turn — during the Command Control Phase.

The examples below involve the brigades of Scot, Varn, and 9 PA-JKN of Wayne's Division of Lee's Corps (Wing).

During the Command Control Phase, Lee is declared CAUTIOUS! and Wayne is declared INDECISIVE!!. Wayne's brigades are situated as follows (#4 is a unit from a different division but the same corps):




The #1 unit has the leader Wayne attached to it. The #4 unit belongs to a different division and has Lee attached to it.

The #1 unit is 0 squares away from its Divisional Commander and 2 Squares away from its Corps Commander. It is penalized 0 points for the distance to its Divisional Commander and 2 points for the distance to its Corps Commander. Its base number is 28 divided by 2 (28/2) or 14. This is rounded down to a Base Command Control Number of 1.5.

The #2 unit loses 20 points for being four squares away from its Divisional Commander and 4 points for being four squares away from its Corps Commander. Its base number is 28 divided by 24 (28/24) or 1.16. This is rounded down to a Base Command Control Number of 1.1.

The #3 unit loses 10 points for being two squares away from its Division Commander and 2 points for being two squares away from its Corps Commander. Its base number is 28 divided by 12 (28/12) or 2.333. This is rounded down to a Base Command Control Number of 1.5.

The #4 unit is not penalized for being away from its Division Commander and is in the same square as it Corps Commander. With 0 penalties, its Base Commander Control Number is 1.5.

Since Lee was declared CAUTIOUS!!, all units in his corps have 0.2 subtracted from their Base Command Control Number. Since Wayne was declared INDECISIVE!, all units in his division have 0.1 subtracted from their Base Command Control Number.

Units #1 and #3 then have a Command Control Rating of 1.5 (Base) minus 0.2 (Corps Leader Effect) minus 0.1 (Divisional Leader Effect) for a Final Command Control Rating of 1.2.

Unit #2 has a Command Control rating of 1.1 (Base) minus 0.2 (Corps) minus 0.1 (Division) for a Final Command Control Rating of 0.8.

Unit #4 belongs to a Division with a CONFUSED!!! commander. Its Command Control is computed as 1.5 (Base)

minus 0.2 (Corps) minus 0.3 (Division) for a Final Command Control Rating of 1.0. Note that while units stacked with the Corps Commander are not penalized for being away from their Division Commander, they are still affected by the Division Commander's Command Control Effect Rating.

## 20.2 Operation Points

A unit's Operation's Points on any particular turn are determined by its Command Control Rating, its Morale, and a random number as illustrated by the following table:

| Command Control | 30 Morale | 60 Morale | 90 Morale |
|---|---|---|---|
| .5 | 8 | 8 | 8 |
| .6 | 8 | 8 | 8-9 |
| .7 | 8 | 8-9 | 9-10 |
| .8 | 8-9 | 9-10 | 10-11 |
| .9 | 9-10 | 10-11 | 11-12 |
| 1.0 | 10-11 | 11-12 | 12-13 |
| 1.1 | 11-12 | 12-13 | 13-14 |
| 1.2 | 12-13 | 13-14 | 14-15 |
| 1.3 | 13-14 | 14-15 | 15 |
| 1.4 | 14-15 | 15 | 15 |
| 1.5 | 15 | 15 | 15 |

## 20.21 Operation Costs Tables

### MOVEMENT COSTS

| Terrain Type Entered / OP Cost For: | INF.* DIS.CAV. | INF. COL | MTD CAV. | LIMB. ART. | UNLIMB.* ART |
|---|---|---|---|---|---|
| Clear, Ridge, Bridge | 4(5) | 2(3) | 1(2) | 2(3) | P* |
| Breastworks, Hedge, Rough, Village Fence | 5(7) | 3(5) | 3(5) | 4(6) | P* |
| Woods[1] | 6(8) | 4(6) | 5(7) | 6(8) | P* |
| Road[2] | NA | 1 | 1 | 1 | P* |
| Water | P | P | P | P | P* |
| Ravine | 6(8) | 4(6) | 4(6) | 6(8) | P* |
| Town | P | P | P | P | P* |
| Swamp | 7(9) | 5(7) | 6(8) | [3] | P* |
| Creek | 5(7) | 3(5) | 3(5) | 5(7) | P* |
| Higher Elevation Per Level [4] | +1 | +1 | +1 | +2 | P* |
| Enter ZOC | +3 | +3 | +1 | +3 | P* |
| Leave ZOC | +1 | +1 | +1 | +1 | P* |
| ZOC to ZOC[5] | +2 | +2 | +2 | +2 | P* |

[1] Most British units pay one additional OP to enter woods squares.
[2] To be eligible for road movement rate, a unit must be in Column, Mounted, or Limbered formation and be moving either horizontally or vertically (not diagonally) from one road square to another. Infantry in line/dismounted cavalry pay OP for the normal (non-road) terrain type in the square.

[3] Requires all of the units OP. May only be entered if the unit performs no other action that phase and has a minimum of 1 OP.
[4] Penalty is for each change in elevation. Entering a square that is one elevation higher would cost one additional OP. Entering a square which is two elevations higher will cost two additional OP and so on.
[5] To be eligible for ZOC to ZOC movement, the unit must be entering a friendly-occupied square. Movement penalties are cumulative. The moving unit must pay the cost to leave a ZOC, plus the cost to enter a ZOC, plus the ZOC to ZOC movement cost, plus the normal cost to enter that terrain type. ZOC to ZOC movement is normally permitted for units with insufficient OP to pay the movement cost, if it is the only action the unit performs in a phase and if that unit has at least 1 OP.
Numbers shown in parenthesis () are for diagonal movement.
P = Prohibited.
NA = Not Applicable.
* Not applicable in BASIC GAME.

## 20.22 Other Operation Costs

### ACTION COSTS

| Action Performed | OP Cost For: | INF.* DIS. CAV. | INF. COL | MTD CAV. | LIMB. ART. | UNLIMB.* ART |
|---|---|---|---|---|---|---|
| Change Facing | | +1 | 0 | 0 | 0 | +1 |
| Change Formation to Column, Mounted, or Limbered* | | 2 | NA | NA | N/A | 2 |
| Change Formation to Line, Dismounted, or Unlimbered* | | NA | 4 | 4 | 4* | N/A |
| Fortify[6] | | +8* | P | P | P | +8* |
| Fire in Fire Phase | | 2 | 2 | 2 | 4 | P* |
| Melee (attacker) | | 4 | 4 | 4 | P | P* |
| Melee (defender) | | 4 | 4 | 4 | 4 | 4* |

[6] Used in ADVANCED GAME only.
NA = Not Applicable.
P = Prohibited.
* Not applicable to BASIC GAME.

## 20.3 Fatigue Table

### FATIGUE TABLE

| Action | Cost |
|---|---|
| Fire and Melee Combat | |
| Infantry and Cavalry | +3 |
| Artillery | +8 |
| Enter Clear, Village, Bridge, Rough, or Road* square | +1 |
| Enter Woods, Swamp, Creek, or Ravine Square | +2 |
| Cross Fence or Hedge | +1 |
| Enter Higher Terrain | +1 per elevation gain |
| Fortify | +15 |

*Only applies if unit is eligible for road movement rate. Units in road movement have a 50 percent chance of getting 1 Fatigue point per move. Units not using road movement are penalized Fatigue cost for the non-road terrain type of the square.

## 20.4 Efficiency Table

| ACTION | COST |
|---|---|
| Unit moved onto by Routing unit | -8 |
| Unit moved onto by retreating unit | -3 |
| Unit retreats | -3 |
| Unit stacked with unit that Routs | -15 |
| Per casualties of 3 men* | -2 |
| Unit changes formation | -2 |
| Unit changes formation in ZOC | -2 |
| Unit Advances | +2 |

*For units with less than 400 men. If a unit has over 400 men, the Efficiency loss is equal to: 2/3(men lost) x 400/(# of men in unit).

## 20.5 Weapon/Range Casualty Table

| | | RANGE IN SQUARES | | | | | |
|---|---|---|---|---|---|---|---|
| WEAPON TYPE | ABBREV. | 1 | 2 | 3-4 | 5-6 | 7-8 | 9-12 |
| Rifle | RFL | 3.5 | 3 | .5 | 0 | 0 | 0 |
| Musket | MSK | 3 | .5 | 0 | 0 | 0 | 0 |
| Carbine | CRB | 2 | 0 | 0 | 0 | 0 | 0 |
| 3 Pound Gun | 3PD | 4.5 | 2.5 | 1.5 | 1 | 0 | 0 |
| 6 Pound Gun | 6PD | 8.5 | 4.5 | 3.5 | 1.5 | 1 | .5 |
| 12 Pound Gun | 12P | 15 | 7.5 | 5.5 | 3.5 | 1.5 | 1 |
| 24 Pound Gun | 24P | 19 | 9.5 | 7 | 4.5 | 2.5 | 1 |
| Mortar | MTR | .5 | .5 | 3 | 4.5 | 1.5 | .5 |

The number under the range column for each weapon type is the number of casualties that weapon will inflict at that range per 100 men or per gun firing. These casualties are modified by other factors. Refer to Section 20.6.

## 20.6 Fire and Melee Strength Modifiers Table

| TARGET LOCATION | FIRE | MELEE |
|---|---|---|
| Clear | 1.00 | 1.00 |
| British* units in woods or village | 0.90 | 0.90 |
| American units in woods or village | 0.60 | 0.60 |
| Ravine | 0.80 | 0.80 |
| Breastworks/Redoubt | 0.70 | 0.40 |
| Swamp | 1.00 | 0.70 |
| Hedge/Fence | 0.70 | 0.70 |

*Some British units fire as American. Refer to scenario special rules.

| FIRING UNIT'S LOCATION | FIRE | MELEE |
|---|---|---|
| Clear, Swamp, Hedge | 1.00 | 1.00 |
| Units in woods | 0.90 | 0.90 |
| Ravine | 0.80 | 0.80 |
| INF in Breastworks/Fence/Redoubt | 3.0 | 1.00 |

| FORMATION | FIRE | MELEE |
|---|---|---|
| Mounted Cavalry | 0.85 | 2.50 |
| Dismounted Cavalry | 0.75 | 1.00 |
| American Column [1] | 0.30 | 1.00 |
| American Line | 1.00 | 0.80 |
| British Column [1] | 0.30 | 1.25 |
| British Line | 1.00 | 1.00 |
| Limbered [1] | 0.20 | 0.50** |
| Unlimbered | 1.00 | 1.00 |

[1] Allowed to Melee Defensive Fire only.
** May only defend in melee and with this modifier.

| SPECIAL CONDITIONS | FIRE | MELEE |
|---|---|---|
| Artillery Woods to Woods [2] | 0.20 | NA |
| Melee Defensive Fire | 1.50 | NA |
| Disrupted unit [1] | 0.50 | 0.50** |
| Routed unit [1] | 0.05 | 0.25** |
| Out of ammunition [1] | 0.30 | 0.70 |
| Per 10 points of attached leader bonus [3] | +.10 | +.10 |
| Command Control | As given | As given |
| Per 20 points of Fatigue | -.10 | -.10 |
| Per 20 points of Efficiency less than 100 | -.10 | -.10 |
| Per artillery gun for each man less than 16 | -.06 | NA |
| Unit attacked through its Flanks [1] | 0.15 | 0.15 |
| Target unit is Flanked | 1.50 | 1.50 |

[1] Melee Defensive Fire only.
[2] Replaces other woods penalties.
[3] INTERMEDIATE and ADVANCED Games only.
NA = Not Applicable.
** May only defend in melee and with this modifier

## 20.61 Elevation Fire Modifiers

| | |
|---|---|
| Firer 1 Elevation higher than target | 1.10 |
| Firer 2 Elevations higher than target | 1.30 |
| Firer 3 Elevations higher than target | 1.60 |
| Firer 4 Elevations higher than target | 2.00 |
| Firer 1 Elevation lower than target | 0.91 |
| Firer 2 Elevations lower than target | 0.77 |
| Firer 3 Elevations lower than target | 0.63 |
| Firer 4 Elevations lower than target | 0.50 |

## 20.62 Additional Fire and Melee Strength Modifiers

**Ammo Blow Up!:** Artillery units which suffer an Ammo Blow Up have their ammunition reduced to 0.

**Leader Bonus:** A leader with a bonus of 20 would multiply casualties by 1.2.

**Target Density:** For every 20 men over 200 in the target square, casualties are increased by 0.01. For every 20 men less than 200 in the target square, casualties are decreased by 0.01.

**Density of Firing Unit's Square:** For every 20 men over 200 in the firer's square, casualties inflicted by that fire are reduced by 0.01. For every 20 men under 200 in the firer's square, casualties inflicted by that fire are reduced by 0.01. Does not apply to artillery fire.

**Fortification level:** The unit firing into the fortification is penalized .10 per level of fortification. Firing at a unit in a level 3 fortification would reduce casualties by 30 percent.

**Efficiency:** For every two points a unit's Efficiency is below 100, its fire is penalized by 0.01. A unit with an Efficiency of 60 would have its fire multiplied by 0.80. EXAMPLE: A 500 man unit with an Efficiency of 60 would have the same fire power as a 400 man unit with an Efficiency of 100 (excluding all other modifiers).

**Fatigue:** For every two points of Fatigue, a unit's fire is penalized by 0.01. A unit with a Fatigue of 10 would have its fire multiplied by 0.95. EXAMPLE: A 500 man unit with a Fatigue of 10 would have the same fire power as a 475 man unit with no Fatigue (excluding all other modifiers).

**Command Control:** A unit's fire is multiplied by its Command Control Number. Excluding all other modifiers, a 500 man unit with a Command Control of .8 would fire as a 400 man unit with a Command Control of 1.0 (500 x .8 = 400. 400 x 1.0 = 400), and a 300 man unit with a Command Control of 1.5 would fire as a 450 man unit with a Command Control of 1.0 (300 x 1.5 = 450. 450 x 1.0 = 450).

**Artillerymen:** Each gun requires 16 artillerymen to fully support it. When a gun has less than 16 artillerymen, its fire is reduced proportionately. EXAMPLE: a gun with 8 men would have its fire multiplied by 0.50. (8 = 0.50 of 16).

**Unit Outmaneuvered:** Units occupying a woods square may be outmaneuvered by enemy units which move into an adjacent wood square. Unit's which have been outmaneuvered have their fire power halved for that Combat Phase.

**Successful Attack:** A unit which moves next to an enemy unit may receive a successful fire bonus in the following Combat Phase. The bonus increases the unit's fire power by 50 percent.

**Maximum and Minimum Modifiers:** All modifiers are cumulative with a maximum of 2.00 and a minimum of 0.16. Exception: there is no minimum modifier for file by routed units.The 3 times modifier for fire from breastworks is applied after other modifiers. It is not subject to the normal 2.00 maximum modifier restriction.

## 20.63 Fire and Melee Strength Examples

A unit's fire causes a number of casualties equal to the number indicated on the WEAPON\RANGE CASUALTY TABLE for the type and number of weapons firing multiplied by all modifiers.

A unit firing under the following conditions would receive the indicated modifiers (all modifiers are multiplied together):

| | |
|---|---|
| -Target is 2 elevations higher than firer | = 0.77 |
| -Firer Density | = 0.90 |
| -Target Density | = 1.00 |
| -Firer has .75 Efficiency | = 0.87 |
| -Firer is in Breastworks | = 3.00 |
| -Firer has leader w/bonus of 20 | = 1.20 |
| -Firer has 30 Fatigue | = 0.85 |
| -Target is in Breastworks | = 0.40 |
| -Firer has Command Control of 1.3 | = 1.30 |
| TOTAL | = 0.96 |

In this example, a 400 man unit that is armed with muskets and firing at a 200-man target 1 square away would inflict 11 casualties. The equation for this is:

Casualties per 100 men with muskets/one square range = 3
Times number of men firing divided by 100 = 4
Times all modifiers = 0.96
(3x4x0.96 = 11.52) rounded down = 11.

## 20.7 Melee Results Table

The attacker's modified strength is divided by the defender's modified strength to determine the odds which govern the losses and retreats from melee. The odds of 2 to 1 are considered the break-even point for losses. The defender or attacker (not both) may retreat according to the chart below. The American is checked first and then the British (provided the American does not retreat).

| ODDS | % Chance Attacker Retreat | % Chance Defender Retreat |
|---|---|---|
| <0.3 | 60 | 10 |
| 0.3 to 0.49 | 50 | 20 |
| 0.5 to 0.99 | 40 | 30 |
| 1.0 to 1.99 | 30 | 40 |
| 2.0 to 2.99 | 20 | 50 |
| 3.0 to 3.99 | 0 | 60 |
| 4.0 to 4.99 | 0 | 70 |
| 5+ | 0 | 80 |

## 20.8 Disruption Table

A unit has a chance of being disrupted based on the number of men in the unit and its number of losses (LS). The chart below gives some examples:

| MEN IN UNIT | NO CHANCE OF DISRUPTION | CHNCE WITH 10 LS | CHNCE WITH 15 LS | CHNCE WITH 20 LS | CHNCE WITH 25 LS | CHNCE WITH 30 LS | CHNCE WITH 50 LS |
|---|---|---|---|---|---|---|---|
| 100 | 0 - 5 LOSSES | 10% | 20% | 30% | 40% | 50% | 90% |
| 200 | 0 - 10 LOSSES | - | 10% | 20% | 30% | 40% | 80% |
| 300 | 0 - 15 LOSSES | - | - | 10% | 20% | 30% | 70% |
| 400 | 0 - 20 LOSSES | - | - | - | 10% | 20% | 60% |

## 20.81 Disruption Recovery Table

Recovery from disruption is based on Command Control and whether or not a unit is in an enemy ZOC.

| Command Control | No Enemy ZOC | Enemy ZOC |
|---|---|---|
| .5 | 35% | 12% |
| .6 | 40% | 13% |
| .7 | 45% | 15% |
| .8 | 50% | 17% |
| .9 | 55% | 18% |
| 1.0 | 60% | 20% |
| 1.1 | 65% | 22% |
| 1.2 | 70% | 23% |
| 1.3 | 75% | 25% |
| 1.4 | 80% | 26% |
| 1.5 | 85% | 28% |

## 20.9 Rally Table

The higher a unit's Morale and Command Control, the greater its chance to recover from Rout (Rally). See the following chart for examples of percentage chance to Rally.

| Command Control | MORALE 30 | 40 | 60 | 80 |
|---|---|---|---|---|
| .5 | 41% | 45% | 53% | 60% |
| .6 | 43% | 47% | 55% | 62% |
| .7 | 45% | 49% | 57% | 64% |
| .8 | 47% | 51% | 59% | 66% |
| .9 | 49% | 53% | 61% | 68% |
| 1.0 | 51% | 55% | 63% | 70% |
| 1.1 | 53% | 57% | 65% | 72% |
| 1.2 | 55% | 59% | 67% | 74% |
| 1.3 | 57% | 61% | 69% | 76% |
| 1.4 | 59% | 63% | 71% | 78% |
| 1.5 | 61% | 65% | 73% | 80% |

## 21.0 TURN SEQUENCE

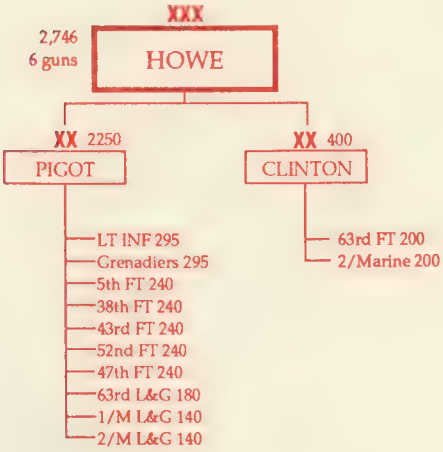
Each turn is subdivided into a number of phases which appear in the following order:

1. The Command Control Phase in which Command Control and Operation Points are determined. This is done randomly in the BASIC and INTERMEDIATE Games and by formula in the ADVANCED GAME.
2. The Reinforcement Phase in which reinforcing units enter the game map.
3. The American Player First Operation Phase when the American player moves units and gives them combat orders.
4. The First Combat Phase when combat is resolved.
5. The American Player First Recovery/Rally Phase in which American units recover from the effects of combat and American Operation Points are assigned.
6. The British Player First Operation Phase when the British Player moves units and gives them combat orders.
7. The Second Combat Phase.
8. The British Player First Recovery/Rally Phase in which British units recover from the effects of combat and British Operation Points are assigned.
9. The American Player Second Operation Phase.
10. The Third Combat Phase.
11. The American Player Second Recovery/Rally Phase.
12. The British Player Second Operation Phase.
13. The Fourth Combat Phase.
14. The British Player Second Recovery/Rally Phase.
15. The Victory Determination Phase when points for casualties and terrain objectives are totalled.

Major phases may be subdivided into minor phases (Example: 10.6 Combat Sequence).

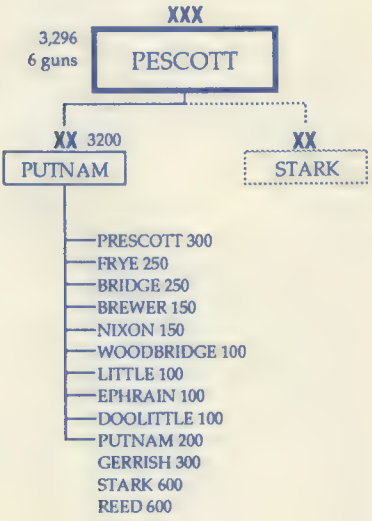
## Bunker Hill British Organizational Chart

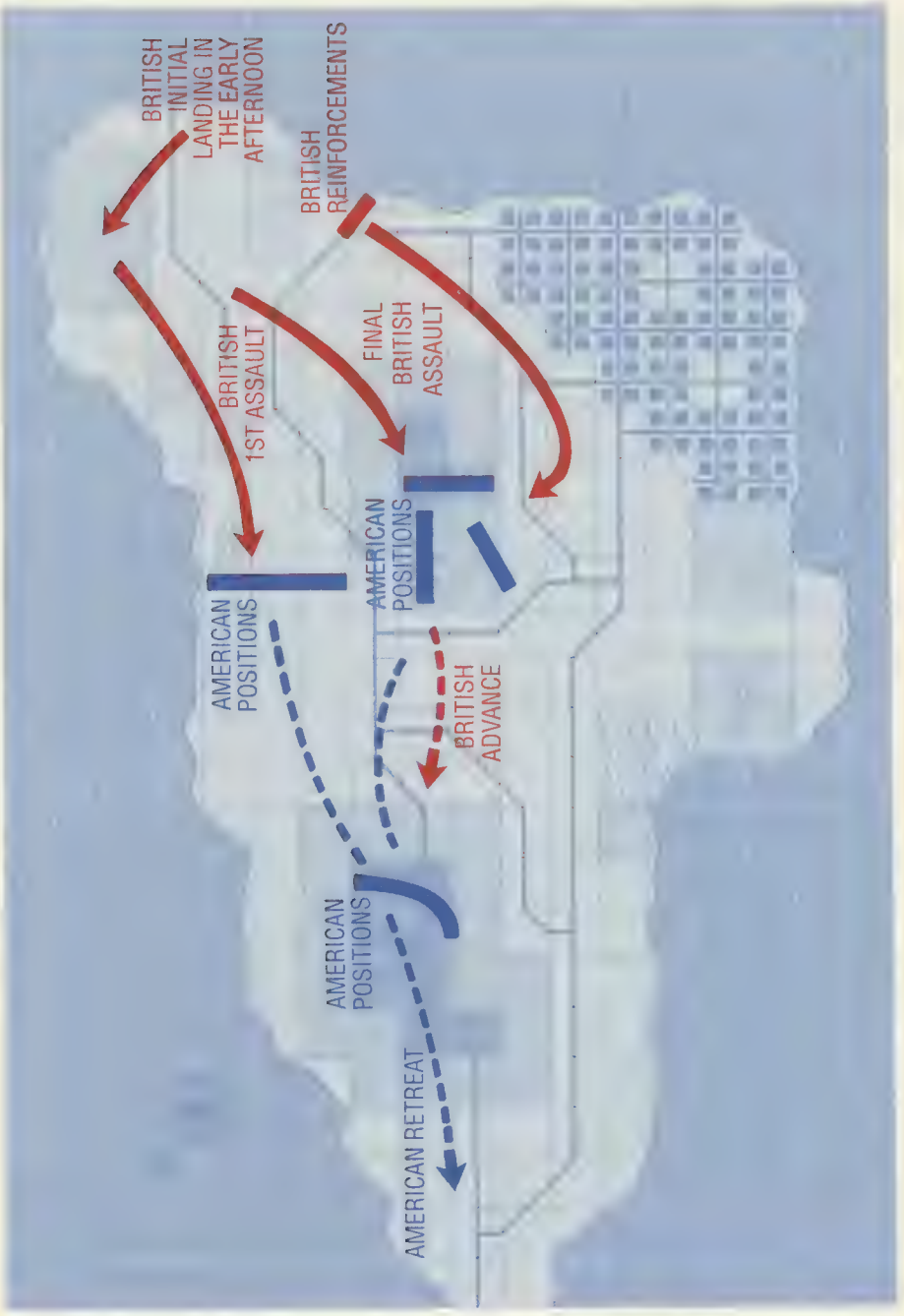
2,746 men (2,650 men, 96 artillerymen) 6 guns




## Bunker Hill American Organizational Chart

3,296 men (3,200 men, 96 artillerymen) 6 guns






# HISTORICAL SITUATION MAP:
## Battle of Bunker Hill

# THE BATTLE OF BUNKER HILL

In late May, 1775, General Gage's force in Boston was reinforced from England, binging it to a total of about 6,500 men. With the British reinforcements came three major generals of considerable military experience and reputation who were to play leading roles in the Revolution — William Howe, Henry Clinton, and John Burgoyne. All were anxious to take the offensive and get what Burgoyne referred to as "elbow room." However, it was the Colonials who first took the initiative and, on the night of 16 June, 1775, threw up entrenchments on Breed's Hill on the Charelston isthmus overlooking Boston from the north. The original intent had been to fortify Bunker Hill, nearer the narrow neck of the isthmus, but for reasons not clear even today they decided to move in closer. Nevertheless, Bunker Hill was to give its name to the battle that ensued.

In moving onto Breed's Hill the Americans placed themselves in a position where they could easily have been cut off had the British landed in their rear at the neck of the isthmus. But other councils prevailed in Boston. Gage, with the approval of Howe, to whom tactical control was entrusted, decided on the morning of 17 June that the rebels must be dislodged before they could complete their works. Scorning elaborate maneuver, he evidently calculated that the ill-trained American Militia would disintegrate when faced with disciplined Regulars and that such a defeat administered in a direct attack on the hill would show the rebels the futility of resisting British power. Howe's force of around 2,200 men was ferried from Boston to Charlestown and in midafternoon on 17 June began the attack on the American front and flanks. The Americans behind their entrenchments held their fire while the British Regulars sweated up the hill under their heavy packs. When the redcoats came within 50 yards, they opened a devastating fire. Twice the well-formed British lines broke and retreated, leaving large numbers of killed and wounded on the fireld. By this time the Americans were nearly out of powder, and a third British attack with bayonets carried the hill. The Militia, without bayonets or other means of close-in defense, withdrew across the neck of the isthmus to the mainland. But Howe's victory had cost him more than 1,000 casualties to the American's 400, and his forces were too disorganized to undertake a pursuit. His experience at Bunker Hill made Howe thereafter wary of attacking Amereicans in fortified positions, even under the most favorable circumstances. The British again retired to Boston and the siege was resumed.

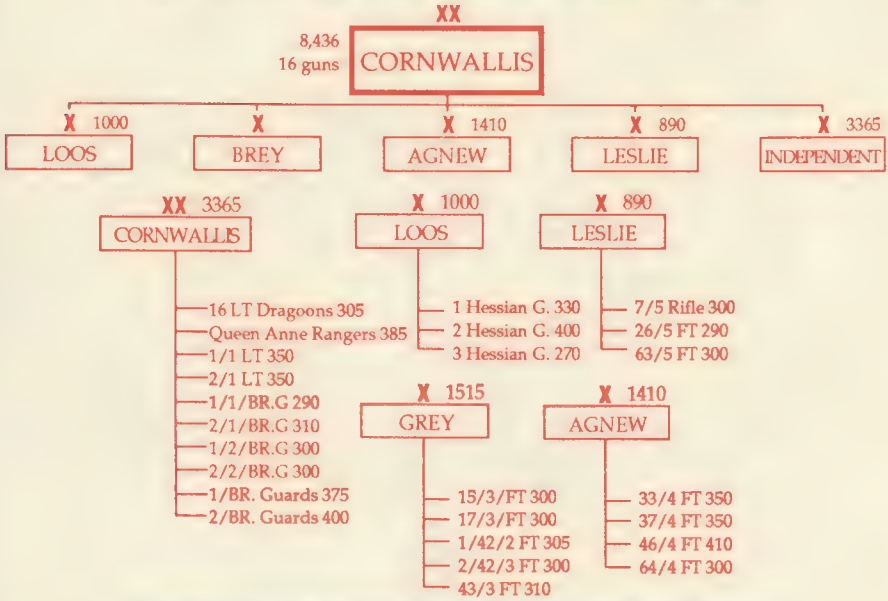
Bunker Hill was more notable for the failure of both sides to observe the principles of war than for intelligent military leadership. In moving onto Breed's Hill the Americans exposed an important part of their force to destruction in an indefensible position, violating the principles of concentration of force and maneuver. They also violated the principles of unity of command, for to this day, no one can say what their command structure was. The British, for thier part, sacrificed all the advantages the American blunders gave them by violating the principles of maneuver and surprise, undertaking a suicidal attack on a fortified position rather than cutting it off from the rear. On the other hand, the untrained Militia showed surprising steadfastness in the face of attack by Regulars, and the

rapidity with which the entrenchments were dug on Breed's Hill evidenced a proficiency in the use of the spade unknown and unencouraged in European armies. On another score, Bunker Hill created a dangerous myth that untrained and hastily raised Militia were the equal of trained troops under any circumstances, a myth to which the future course of the Revolution and our national history was many times to give the lie.

(This section on Bunker Hill was taken from AMERICAN MILITARY HISTORY 1607-1958, a Department of the Army ROTC Manual published in 1959. ROTC Manual No. 145-20, July 17, 1959, U.S. Government Printing Office)

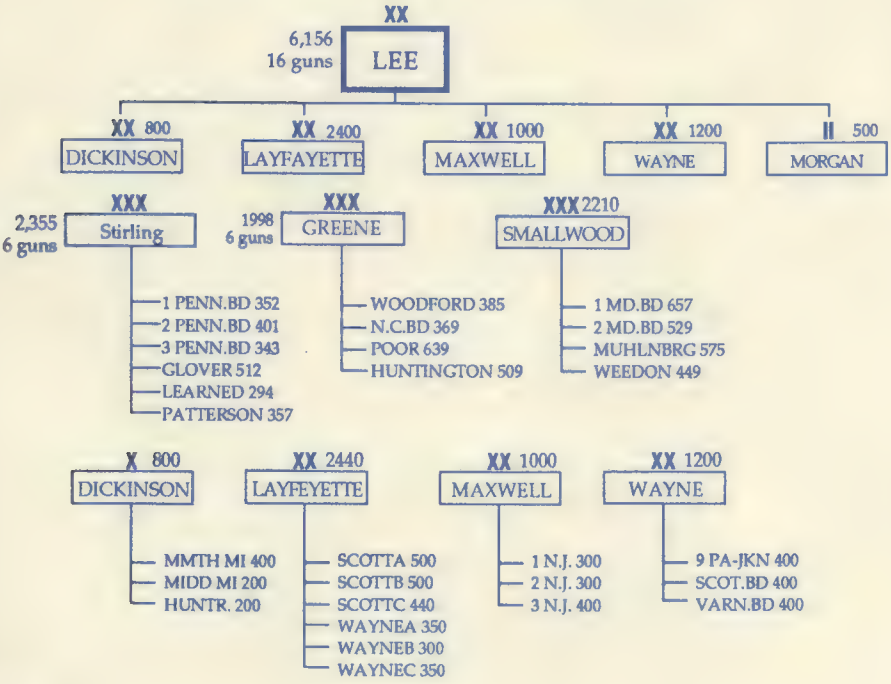
# Monmouth British Organizational Chart

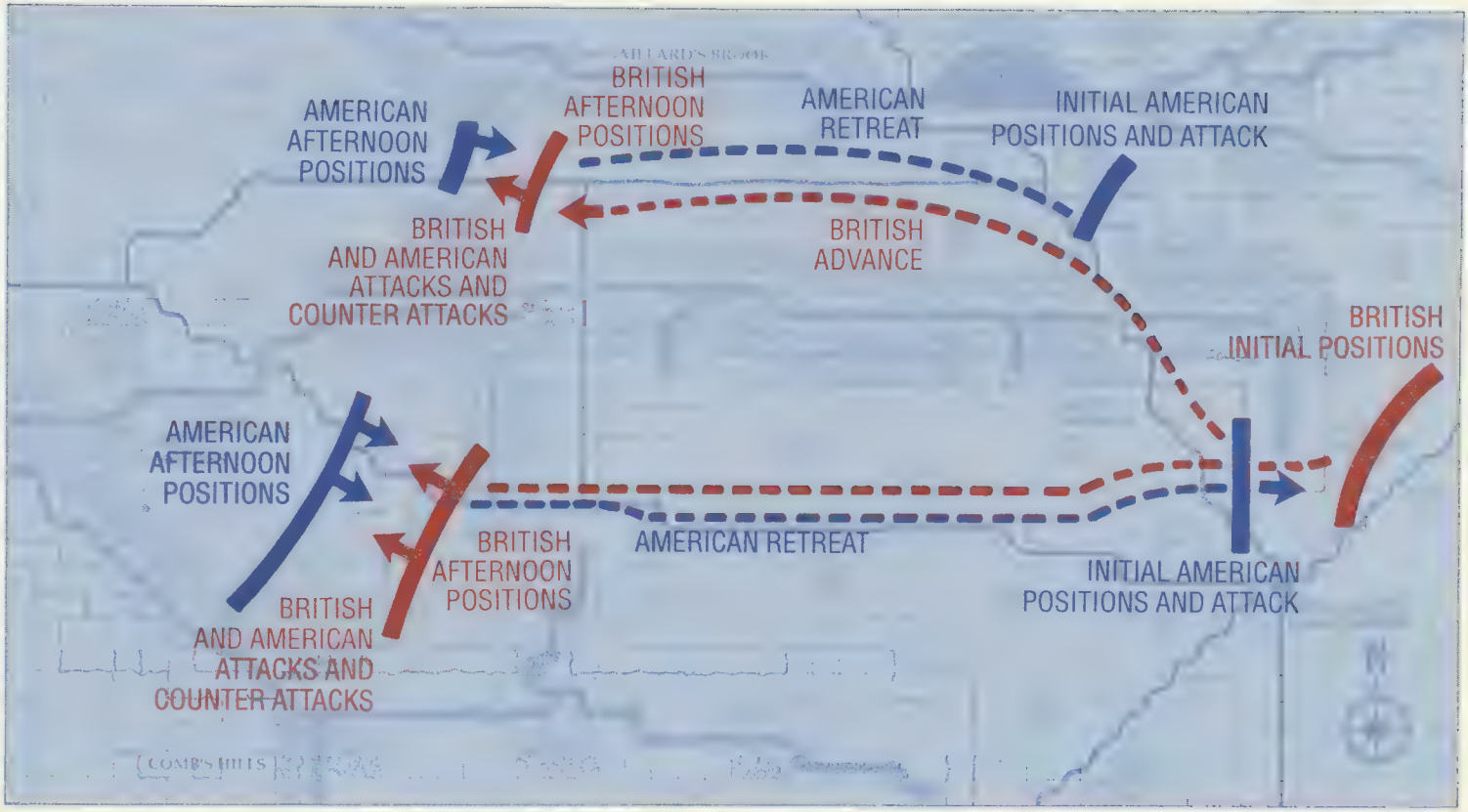
8,436 men (7,490 men,256 artillerymen, 690 cavalry) 16 guns




# Monmouth American Organizational Chart

12,719 men (12,271 men, 448 artillerymen) 28 guns






# HISTORICAL SITUATION MAP:
## Battle of Monmouth

# THE BATTLE OF MONMOUTH

One day after Lt. Gen. Henry Clinton was appointed Commander in Chief of British forces in America, he received orders to abandon his base in Philadelphia and move to New York. The entry of France into the war (prompted by the British defeat at Saratoga) had forced the British to shift their forces. Clinton was to ship out much of his army to guard more important territory.

News of the coming move caused much concern among the Tory population of Philadelphia that had remained loyal to King George. Fearful of reprisals from the rebels once the army withdrew, the Tories prevailed on Clinton to move them as well. The addition of the Tories and their baggage forced Clinton to change his plans.

Ordered to go by ship, he instead put the Tories and a small force aboard the available transport and marched the rest of his force, along with a 12-mile long wagon train, out of Philadelphia and into New Jersy.

The Americans under Lt. Gen. George Washington had been waiting for the move. Washington knew that Clinton's forces would be dispersed during the move. This could provide an opportunity to fall on the British and defeat them in detail. It was also possible that too bold a move could bring the colonials, still recovering from a winter at Valley Forge, into a major battle with the main British force. A battle they could lose.

The Americans harassed the British from all sides during the move. Marching under a sweltering June sun, Clinton rested his force for one day (June 27) at the small town of Freehold where the Monmouth County Courthouse was located. The transport had delivered the Tories safely to New York and Clinton had decided to change his line of march to meet the transports at Sandy Point and finish the move by ship. This decision greatly reduced the risk of American attack. It also reduced the time Washington had to act.

Advance American units under Charles Lee were ordered to engage the British rearguard. Skirimishing had occured throughout the morning of June 28 with the first significant clash coming between the British Dragoons and the American 9th Pennsylvania infantry around noon.

As contact between the two forces increased, Clinton became concerned that his wagon train, moving through a narrow ravine, might come under attack. He also saw an opportunity to turn and punish the American forces which had been dogging him throughout the move.

Many American units were fighting under new commanders. Lee, who led the force, had been opposed to going after Clinton aggressively and this caused friction between he and subordinate commander Anthony Wayne. American infantry units were fighting from the cover of forest while an accompanying artillery unit fought from clear ground. The artillery unit eventually ran out of ammunition and withdrew.

Other American units, seeing the only visible friendly unit falling back, decided to withdraw also. This left the American forces under Marquis de Lafayette (whom Washington had wanted to command the action) isolated north of Freehold. Lee found himself unable to halt this unauthorized withdrawal and it continued for

sometime until it brought him into contact with Washington at Tennent Church at about 2 p.m.

Knowing that the British were advancing, Washington formed a line along a ridge. Behind the ridge and protected from fire, he placed a reserve. The strength of these forces was increased by units that had retreated from the fight around Freehold.

While Washington was forming his line, Wayne had been positioned to blunt the British attack. His force was broken, but rallied behind a hedge row long enough to prevent the rest of Lee's men from being cut off.

Around 3:30 p.m., forces under Nathaniel Greene arrived on the American right flank. Greene occupied Comb's Hill which permitted him to place artillery to rake the British line.

Clinton launched a main attack against Washington's line at around 4 p.m. His guard and foot units moved against Washington's center, but they failed to break the Americans who were greatly aided by the flank fire provided by Greene's units.

Clinton tried to send a flanking force around the American left, but these encountered an American line and were stopped.

The heat and fatigue took their toll and the battle eventually faded into an artillery duel in which the American guns, with the advantage of height, had the advantage.

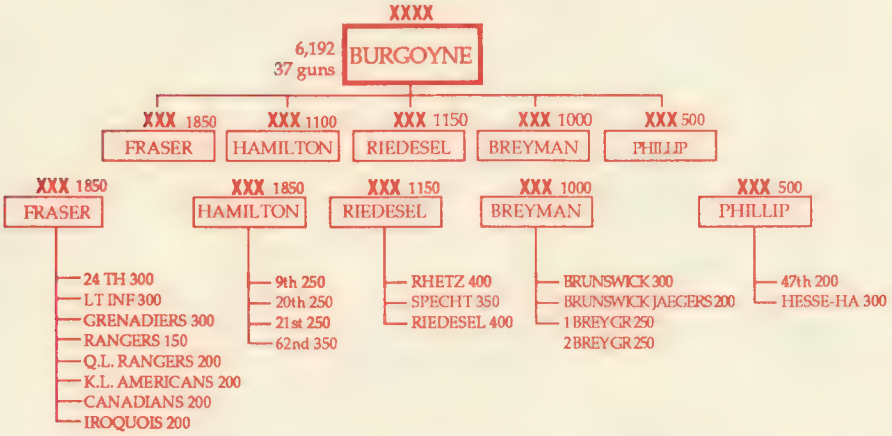
At about 5 p.m., Clinton decided to break off the action and withdraw. Wayne attacked the rear guard, but was repulsed. The Americans failed to pursue vigorously, and the British boarded the ships to New York.

A temperature of 96 degrees was recorded at Freehold on the day of the battle and a total of nearly 100 men (both sides) are listed as having died of sunstroke during the battle.

After Monmouth, Clinton did not conduct a major campaign until his capture of Charleston in 1780.

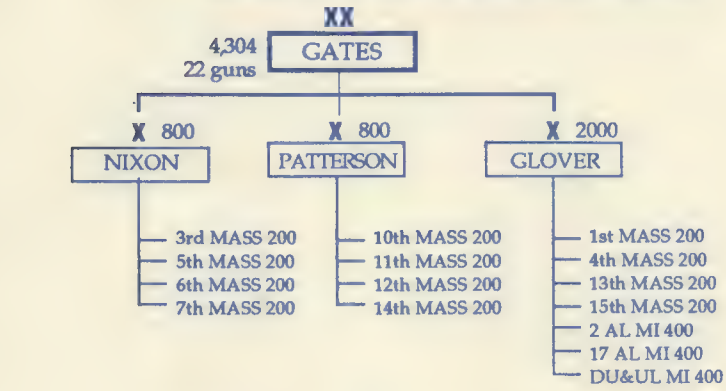
## Saratoga British Organizational Chart

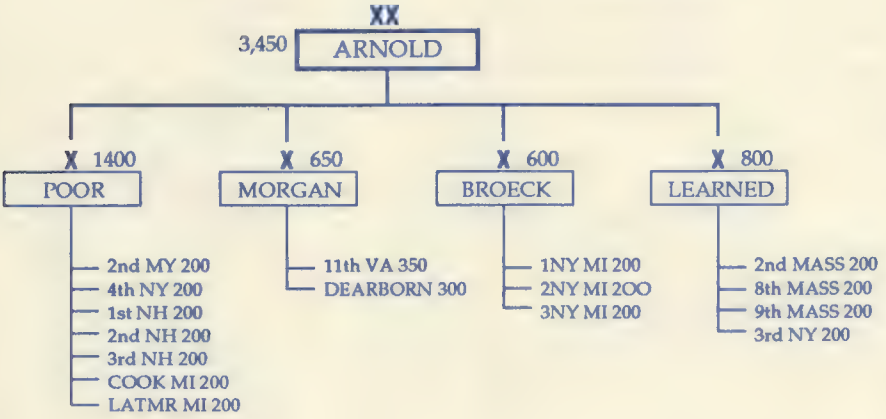
6,192 men (5,600 men, 592 artillerymen) 37 guns




## Saratoga American Organizational Chart

7,402 men (7,050 men, 352 artillerymen) 22 guns



# HISTORICAL SITUATION MAP:
## Battle of Freeman's Farm

# THE BATTLE OF SARATOGA

To follow up the successes against the forces of George Washington, the British planned a three pronged assault into New England in 1777. The major thrust of this assault was to be against Albany where General John Burgoyne would lead a column south from Canada to meet up with a column led north from New York City by General William Howe.

Burgoyne began his movement with over 9,000 men. This force grew smaller as he was forced to leave units behind to garrison forts he had captured along the way. His advance delayed by American forces, Burgoyne found himself growing increasingly short of supplies. To alleviate this, he detached a strong force to capture supplies from the Americans. This detachment was defeated with a loss to Burgoyne of over 1000 men.

In the meantime, the second prong, a smaller force from Canada, had been forced to turn back. Howe failed to advance from New York City and Burgoyne's situation was growing desperate.

Advancing south toward Albany on Sept. 13, he encountered the forces of General Horatio Gates entrenched on Bemis Heights west of the Hudson River.

At 11 a.m., Sept. 17, the Battle of Freeman's Farm (part one of the Battle of Saratoga) began with a British advance on the American position.

The British intended to seize a hill on the American left flank and use it as a base for artillery to support a wheel around the American left that would result in a flank attack. This was to be accomplished by two British columns while a third attacked near the river to keep the Americans pinned there and unable to react to the British moves.

The British advance was made difficult by several days of rain which had made the ground muddy and treacherous and by the wild terrain which fragmented the British Army as it moved.

Gates was content to wait in the entrenchments for the British assault. General Benedict Arnold convinced Gates to permit him to advance against the British forces moving against the American left.

Special skirmish units under Colonel Daniel Morgan moved forward and took up positions in front of Freeman's Farm. These units were contacted by two British columns at about 1 p.m. Two New Hampshire regiments moved to reinforce Morgan and Arnold led a counter attack against the British at about 2 p.m. The counterattack failed, but Morgan's units continued to hold on.

Arnold led another counter attack at around 3:30 p.m., this one against the center of the middle British force. The attack went well until Brunswick infantry and artillery appeared on Arnold's flank and forced him to fall back into the woods.

The fighting sputtered out as darkness fell. American losses were around 320 while Burgoyne lost approximatley 560. Gates had kept 4,000 men in his entrenchments who had not fired a shot during the battle.

Burgoyne fell back and entrenched to wait reinforcements and resupply. When this didn't happen, he attacked again on Oct. 7 and was again defeated.

His force reduced to only 6,000 and surrounded by 20,000 Americans, Burgoyne surrendered to Gates on Oct. 17.

This British defeat prompted France to openly assist the Americans against the British. As part of this, a treaty of alliance was signed which eventually brought France into the war against Britain.

## BREED'S HILL: ENDGAME FOR PROFESSIONALS

*By Robert S. Billings*

Young Captain Henry Dearborn couldn't keep himself from jumping when he heard the ship's cannon fire. He knew it would be firing behind him at the narrow string of land the locals called the "Neck." The inexperienced young man was the leading company commander of Colonel John Stark's new regiment of New Hampshiremen, and he was trying hard to look equal to the role. So he didn't turn when he heard the large cannonball strike the ground and splash off into the sea. He prayed it hadn't hit one of the men marching gamely along behind him.

Directly ahead he saw the slight, erect back of Colonel Stark. The man must be made of steel, he thought. Here they were, marching almost the entire regiment across that skinny stretch of land right under the guns of what seemed to Lieutenant Dearborn to be most of the British navy—and Colonel Stark was plodding along as casually as if he were bringing the cows home for milking.

Of course, a couple of decades ago Colonel Stark had been second-in-command to Major Robert Rogers' in the Rangers; he'd been captured by Indians and gained their respect while living with them. He was one of the few old professionals in that band of rank amateurs that had gathered to hem the British inside their Boston base.

They were a noisy, quarrelsome lot, these Johhny-come-lately soldiers, and Captain Dearborn knew how contemptuously those professional British soldiers, quartered in Boston just a few hundred yard away, must look down their noses at them. It was true these gawky, untrained bumpkins had given the British professionals a bit of a scare for just a short time there, coming back from the raid on Lexington and Concord. Those know-nothing soldiers were swarming over the countryside like bees in honey-making time, sniping from every tree and stone wall, and for just a few minutes the proud professionals had broken into a wild retreat. In fact for a moment there it looked like the redcoats might be done for, that they had chewed off a little too much to chew and they were about to gag on it. But then the wildly retreating redcoats had met the reinforcements coming up with artillery and fresh infantry, the situation had been stabilized, and the retreat had resumed in a more orderly fashion.

Neither Captain Dearborn nor his colonel had been there—they were too far away up in New Hampshire to make it in time. But they'd all heard about it. And for a moment they had really felt they might be the equal of those military professionals after all.

That had been many weeks ago, and since then a lot of people had been having second thoughts. Captain Dearborn had heard some of the old soldiers talking—veterans of the fighting in the French and Indian wars. They knew the score. They knew in an open-field, stand-up battle, ragged bands of civilian soldiers tended to evaporate very quickly when confronted by old pros with wickedly glinting bayonets and earth-shaking artillery. But those old veterans, many of whom had fought alongside the professionals in the successful Canadian campaign in the sixties, were still here, many like John Stark leading regiments of these clumsy farmboys and awkward mechanics. Captain Dearborn figured that they wouldn't be here if there wasn't some chance for these hay-foot-straw-foot neophytes in their attempt to challenge His Majesty's mighty military machine.

Only Captain Dearborn hadn't thought it would come so soon. This unruly mob of civilians had scarcely had a

chance to learn to execute those simple close-order drill patterns the old pros could do in their sleep—and without the ability to execute those commands a mob of men could't even be lined up to fight a battle, to say nothing of maneuvering under fire during one.

Still, here was Colonel Stark, plodding along in front of him, apparently undisturbed by the blasting guns, the frightening rush of cannonballs—and just over there a few hundred yards away, thousands of redcoats were probably even now preparing to cross the strip of water and take their revenge for that harried march back from Concord. Colonel Stark had fought alongside those redcoats once. He knew them well—and he also knew what the New England farmboy could and couldn't do. Colonel Stark was a practical, hardheaded man. He wouldn't go charging off on a fool's errand. And he didn't look scared or intimidated by all that British firepower.

Captain Dearborn envied him his calm, sure presence. Back there coming across the Neck the captain had suggested perhaps they should hurry across this highly exposed spot. But Colonel Stark had not increased his pace, had calmly told his subordinate that he wanted his men fresh for the battle they were going into, for one fresh man was worth ten exhausted ones. And he'd kept on at the same determined, unhurried pace he had been setting.

Captain Dearborn felt his face muscles twitch instinctively as another cannon bellowed behind him. Maybe Colonel Stark knew something he didn't, maybe there was a chance for them after all.

It was now nearing mid-afternoon, and the men Stark's regiment were marching up to support had been up there on the hill all day and had lost any feelings of military glory they may have started out with. When they had been formed up and marched out in the middle of the previous night there had been a certain grand sense of moving up to a rendezvous with history. But the heroics had evaporated pretty fast when they had arrived, hardly knowing where they were, and had been handed picks and shovels and told to dig. They knew the British were there not far off across the water, and before many hours it would be dawn. Then the British would see their clumsy efforts at fortification—and on they would come to teach the farmboys turned soldiers a lesson. With all those cannon-bearing ships lying just off shore, the amateur soldiers had damn well better be ready. It was going to be no time for amateurs then. So they had pitched in and dug with a will.

Many myths about the Battle of Bunker Hill have been carried down the years. One of them is that the Yankees had suddenly decided, just sort of for the hell of it, to tweak the king's beard—to go out and build a fortification on Charlestown Heights. The decision had actually been made only after careful consideration—and for a very specific military purpose.

The situation at Boston was this: After the Concord raid the British had had to fight their way back to Boston. They had made it—but now they were trapped there. New England militia had poured in by the thousands, and they were now in hastily built fortifications surrounding the city. The British had the city and access to the outer world through the ships of the Royal Navy. And there they sat, all five thousand of them, hemmed in by a cloud of contemptible rabble, poorly armed and with insufficient ammunition—but still outnumbering the British perhaps three to one.

The British leadership couldn't accept this stalemate for long. One thing the British did have was experienced generals. There was Thomas Gage in overall

command. His second-in-command was Sir William Howe, and next in line was General Henry Clinton. Both men were destined to have a later try at the overall command role. Finally there was General John Burgoyne, due for an all-important role in a later campaign. Together they had agreed on a plan to bring this ridiculous rebellion to an end.

They would launch a sudden attack on the end of the American lines, then roll the panicked amateurs up toward their center in Cambridge. The date had already been chosen: June 18.

But one thing the Colonials had was a good intelligence-gathering system. They had lots of friends still inside Boston, and important military information had a way of leaking across the short span of water that surrounded much of Boston. And the system hadn't failed to leak a prompt warning of the coming attack.

At first glance the Colonials would seem to have little to worry about. They would outnumber the attacking British by 3 to 1 or better. And the redcoats would have to attack them in their fortifications. That was favorable odds for the defense, even in those days.

But all the Colonials weren't amateurs; there were some professional military minds among them—men who had fought alongside the British against the French and who knew how quickly untrained militia can dissolve when confronted by an army of hard-bitten professionals, their discipline enforced with the lash by officers unconcerned with the "liberties" of their subordinates. So far not much training had been going on among many of the American regiments. The privates seemed too busy electing and unelecting their officers as it struck their fancy, and getting into fights with "foreign" militia—any who lived more than a few miles from their own home town. How would this rabble behave when confronted with ranks of hard-eyed professionals with bayonets?

Obviously some of the more experienced American officers thought they had a chance or they wouldn't be there. But few had any illusions this was going to be the joyous picnic a grade-school textbook today can make it appear. They knew they were not leading men who could face odds a professional army could face and still stand and fight undisturbed. Those who had been in on the "rout" of the British retreat from Concord knew how fast the sniping Colonials had scattered when British reinforcements with cannon had appeared on the scene.

Old Artemus Ward, commanding the Americans, was no dashing, heroic leader—but he was nobody's fool either. He knew if his untrained, poorly armed forces ever had to face the redcoats in a stand-up, open-field battle, even a 3-to-1 advantage wouldn't help much. It was quite probable that a good part of the Colonial soldiers couldn't even get themselves into a proper formation and faced in the right direction to fire one volley at the enemy.

No—something would have to be done to try to preempt that British attack. If it wasn't stopped before it got started, considering how many miles of fortifications the Americans had to man, any reasonably competent British officer should be able to get enough local superiority to make the panicking novices take to their heels. And with such a mob of an army, let panic start anywhere on the field and you'd never get it stopped.

But what could be done? To use these raw recruits to actually attack any part of the British in their bastion would be outright insanity.

Two officers with considerable experience in the French and Indian wars had been trying to get the leadership council to consider their plan. General Israel Putnam—"Old Put," Indian fighter, hothead, and a leader of Connecticut

troops—and a fellow veteran of the Indian wars, Colonel William Prescott, had suggested that the Americans should send a force to construct a fortification on Charlestown Heights. This position, on the northern flank and staring straight across the water into the streets of Boston, would be bound to put snarls into any British attack plan. The whole venture initially had struck the Colonial leadership as too risky—too much like what they might expect for Old Put. But that was before this new intelligence of an imminent British attack had reached them. Now they would have to rethink the whole thing.

After much deliberation Old Put was told to go ahead. Colonel Prescott was ordered to take his own regiment and a few other troops, march them to Charlestown the night of June 16-17, and dig a fortification there. The whole operation would be under the command of General Putnam.

And so they had set out, marching at midnight, accompanied by an engineer and former member of the British army, Colonel Richard Gridley, who would lay out the fortification for them.

The place they were marching to was a strange location for a battlefield. Charlestown was on a peninsula that jutted out like a triangular bottle with a narrow neck connecting it to the mainland. It was barely one and a quarter miles long, and its breadth at the base of the triangle was about same distance. The town of Charlestown (now evacuated by most of the citizens) was at the southern end of this broadest part. The peninsula at its closest point was only separated from Boston by 600 yards of water. Except for the town and a few farmhouses, most of the land was open fields separated by many fences and stone walls. It was used to pasture cows. Some of the tall grass had been cut but had not yet been carried away.

The little triangle actually contained three hills: Bunker Hill, the tallest, barely a half-mile from the Neck; Breeds Hill, the next tallest, a little more than a half mile further on toward the base; and finally a small mound called Morton's Hill near the eastern shore—only 34 feet high.

When the three officers (the engineer Gridley, Old Put, and Colonel Prescott) arrived at Bunker Hill there was a hurried conference. There was a difference of opinion about which hill the men should begin fortifying. The original orders had specified Bunker Hill. Prescott wanted to follow the orders directly. Putnam felt both Bunker and Breeds Hill should be fortified. But time was slipping by while they talked, and Gridley said they must start the work immediately to have work on the redoubt far enough along by daylight for defensive use. It was finally decided to start the work on Breeds Hill immediately, while Putnam would try to get reinforcements arriving later to complete the works on Bunker Hill. The decision made, the men were set to work.

The pattern drawn out on the ground by Gridley was of a typical earthwork of the day, a redoubt about 180 feet across at its longest, with certain portions jutting outward on the front and sides. There was a sally port toward the northeast corner, and a narrow entrance toward the rear. Earth was simply dug out from the inside and piled up on the perimeter. Then a ditch was dug just outside the perimeter and that dirt too added to the "walls." Any attackers would have to first cross the open space leading up to the redoubt, go down into the ditch and then up and over the walls—all this under a fire that could begin as soon as the defenders cared to trust their aim and their muskets.

The side of the fortress toward Charlestown faced a steeper slope which would be difficult to attack. But the slope on the other side of the hill was

more gradual, and here Gridley drew a breastwork extending about a hundred yards from the fort to a swampy area below it. Men would be required to man this line in order to protect the flank of the redoubt. Below this breastwork was at least two hundred yards of open field which led down to a steep drop-off and a strip of beach. There was no time now to worry about this space—and no men to station there anyway.

Throughout the night the men worked—part with the picks and shovels, the rest standing guard. As streaks of light began to spread over the eastern sky, the anxious officers wondered if they would be ready in time. Once it was really light, once the British saw them digging away there....they had no idea what to expect—but they were sure it wouldn't be pleasant.

Suddenly there came to the digging men the boom of a cannon, then the tearing sound of a cannonball flying through the air. The men ducked, dropped tools, dove for cover inside the half-constructed fortress.

They could have saved themselves the trouble. It was a wild shot in no danger of striking anyone. But they knew there would be more to come. There were a number of British warships offshore where they could train their guns on this new insult to British rule of the Colonies. Throughout most of the morning the guns had kept up their harassing fire. Though an irritant, it still had done little damage—except for blowing one man's head off and a leg off a second. The navy was under separate control—combined operations under a single command was far in the future. And this British admiral didn't want to get his larger ships in too close. He had no accurate soundings of the area—especially of that section of water inside the peninsula—and he didn't want to run the risk of having a ship go aground at low tide. Furthermore, much of the coastline of the peninsula was a vast mudflat, especially at the Neck. This factor would not only make ships stand off, but it would also be important in limiting the choice of the British landing spots.

Across the few hundred yards of water the higher-ranking British officers were quickly called together to discuss what should be done. General Gage wanted the views of his ranking generals. General Howe, next in line of command, suggested transporting a good-sized body of troops to the peninsula, landing them on the clear space near Morton's Hill, and then attacking and driving out the troublesome diggers. General Clinton, next in line of command, didn't like that long stretch of open ground the redcoats would have to cover before hitting the redoubt in its front. Much better, he thought, to land nearer the Neck and then take the structure from behind.

General Clinton had a point—but there were arguments against landing near the Neck. The mudflats there were one problem. Would the redcoats be any better off landing where they had to wallow through many weary yards of mud—almost surely against a waiting enemy?

Howe's proposal was chosen, and he was placed in command of the operation. He hastened to select the units he would need.

But there was no reason for a hurried embarcation—they would have to wait for the tide to be high enough to let the boats float over the mud and up close to hard ground before making their landing. It would be mid-afternoon before the attack could be made. Plenty of time to prepare those who were chosen to go.

The troops chosen for the operation were the 5th, 38th, 43rd, 47th, and 52nd regiments, together with a battalion of Marines. Ten companies of light infantry and ten companies of grenadiers would go as separate formations. All men

would prepare three days' rations to carry with them. The orders went out to the chosen men.

Why load the men for an attack with so many rations? The answer was simple. General Howe didn't like giving up that marvelous attack against the entire American line that had been planned for the following day. So if these rebels could be driven off their hill in panic—why not just keep going, right into the larger plan? And if they did, the soldiers would have their rations for the whole operation with them.

The troops had been assembled at 11:30. Then came the tedious task of loading them into the fleet's row boats for the short trip across the water. At one o'clock the boats were pushed off from the wharves and set out for the Charlestown peninsula—twenty-eight boats, two abreast, making stately progress past the the booming guns of His Majesty's ships. These guns now increased the intensity of their fire. It was all a grand sight to the watching British still in Boston—and a heart-stopping one to those amateur soldiers waiting on the hill by their newly dug redoubt. They had tweaked the giant's beard—and the giant was now coming out to show them what happened to men who thought they could do that and live to tell the tale.

While all these British preparations had been proceeding, the men on the hill hadn't been idle. They had continued to dig through the growing heat of the day. Once the redoubt was finished their work wasn't through. Next they had to prepare the breastwork which was to jut out from the side of the redoubt to cover the left flank. The right flank, where the land sloped more steeply two hundred yards down to the closest point of the Charlestown buildings, was to be left unfortified. Some small bodies of men were dispatched to conceal themselves in the buildings on the near edge of the town. There they should be able to snipe at any troops attacking the redout's right. A large barn, about two hundred yards behind and to the right of the redoubt, was chosen as a post for additional men to harass any unit attacking on the Charlestown side.

There had been a feeble attempt to match some of the heavy British cannon fire. The Americans had managed to drag four small cannon up to the redoubt. There they found no platforms had been prepared for the guns. After considerable delay, firing platforms were finally prepared for two cannon. The men hoisted two cannon onto the platforms and, after more delay, finally got off a few ineffective rounds—with little damage to the British, but with enough force to cause a firing platform to collapse. Prescott wearily told Captain Gridley, the artillery commander, to take the cannon outside and fire them. The Americans managed to fire a few more ineffectual rounds—stirring up a hornets' nest of British return fire that sent the gunners scrambling for safety. Gridley promptly decided to withdraw to Bunker Hill—though he said Captain Callender, who commanded the other two guns, could stay if he wished. This was clearly not a glorious day in the annals of American artillery.

There were other events which did not bode well for the Americans. A short time before, the other two regimental commanders in the redoubt, Colonel Bridge and Colonel Bricket, had announced that they were too exhausted to stay any longer—intended to retreat to some of the houses in the right rear. As soon as they had left, most of their men began to drift away.

Even Old Put turned out to be a negative factor at one point. Shuttling back and forth from the redoubt to Bunker Hill to the American command post at Cambridge, alternately roaring and begging for reinforcements, water and sup-

plies for the men on the hill, the fiery little man at one point insisted that Prescott have all the entrenching tools carried back to Bunker Hill, so the men there could dig in. Prescott wearily warned him that if he did so, he would never get the men back again to fight the British when they finally appeared. Still General Putnam insisted. Prescott complied—and just as he had predicted, his little band was further depleted as the tool carriers, on reaching Bunker Hill, promptly refused to return to the redoubt. Colonel Prescott, still up there on the hill trying to inspire his remaining troops, all of them now desperate for water after their continuous exertions on one of the year's hottest days, must have often wondered what he was doing there and why he stayed. If he did, he kept those wonderings to himself, for he and his much depleted force grimly prepared to do what they could when the British unloosed their attack.

There were, however, a few positive events in the morning's dreary march toward disaster. One seems hardly worth mentioning—but in this strange war of inspired but ineffectual amateurs against indifferent but disciplined professionals, no one could tell what might suddenly make a difference. A civilian doctor, so stylishly, indeed almost foppishly dressed he must have looked out of place among the sweat-stained, exhausted men in the redoubt, appeared suddenly on the scene.

Hearts beat a little faster and spirits rose as the men learned it was Dr. Joseph Warren, spiritual and political leader of the rebels in the Boston area. Although just made a general in the army, he as yet had no command and had come out to serve as a "volunteer" in the forces fighting for freedom. A handsome, high-spirited leader, dedicated to the American cause but possessed of a dynamic forcefulness that made even hard work and sacrifice a kind of joy, Dr. Warren raised the spirits of all who came in contact with him. He had made the decision to come so suddenly he hadn't even had time to say goodby to the young woman he was engaged to marry.

But perhaps the biggest positive factor, at the very moment the British troops were being rowed to their landing spots, was plodding along the road leading from the Neck up to the redoubt. It was Colonel John Stark and his New Hampshiremen.

General Artemus Ward, commander of the American forces in the Boston area, had been resisting Old Put's clamor for reinforcements all morning. He had to keep his main defenses manned, he reminded the fiery little hothead. He could not strip any part of them to help Prescott, because the moment he did, the British might send a sudden attacking force straight at the weakened point, burst through, and leave the untrained civilians with a determined, professional enemy in their midst. And once the line had been broken, there was no telling what these amateur soldiers might do.

Still General Putnam implored someone to send support to the men who had marched bravely up onto that hill, confident in the belief they would not be left there unsupported.

Finally the Committee of Safety, civilians and amateurs as they were, took a hand in the game. Send them support, they ordered Ward. Perhaps this was the beginning of a treasured American tradition—the subordination of the military to civilian leadership. At any rate, it was obviously the right decision—and none too soon.

Ward, willing enough to follow the orders of his civilian leadership, sent word to the two regiments closest to the Charlestown location to move up in support. He could not have made a better choice. They were Colonel Reed's and Colonel Stark's regiments. Tough, no-frills New Hampshiremen, they had

come to fight and wouldn't hang back. Furthermore, since Colonel Reed was absent, the New Hampshireman in command would be one they all looked up to with awe and admiration—Indian-fighter, Ranger, and single-minded democrat, Colonel John Stark.

Now he was approaching the top of the hill where the the redoubt perched. He had arrived not a moment too soon.

One glance of those sharp eyes, long accustomed to the dangers of warfare on the frontier, told him what must be done.

The hilltop was well protected by the redoubt. The right flank had the steep slope and the parties Prescott had sent out into the Charlestown buildings. Although these detachments had brought the 500 men in the redoubt down to barely 150, the position was formidable. But on the left flank the position must have struck his veteran's eye as desperately weak.

From the redoubt's left side down to the water was a gradually sloping quarter-mile of largely open terrain. Only a hundred yards of it were defended by the breastwork, which ended in a swampy area near a road running the length of the perimeter. So there were over two hundred yards of open terrain, crossed by occasional fences, for the British to use as a route to get around the redoubt and cut it off from the rear.

About a hundred yards to the rear of the redoubt, running from the road down to the beach, was a rail fence. Here a small force, perhaps 200 men, under Captain Knowlton had been posted—but it was clearly too small to man the position against a disciplined British attack. In a moment Stark had made his decision and had his men in motion toward the crucial area.

First he told his men to take cut hay from the field and stuff it between the rails of the fence. Stuffed hay wouldn't stop much—but it might create an illusion of a strong defense in the eyes of the British.

Stark's regiment was the biggest in the army—800 men. And he also had Colonel Reed's regiment, of New Hampshiremen. These tough frontier hunters and farmers would give a good account of themselves in a fight.

But his experienced eye had picked up another disturbing detail. The fence ended at a sharp drop-off over a beach a dozen feet wide at high-tide. It was a small passage way—but a protected one, and just the kind he suspected the British might use to get into the American rear. Again, he made his decision quickly.

He personally led 200 men down onto the beach and told them to extend the fence line with a stone wall, using stones removed from nearby fences.

Meanwhile, Colonel Gridley had returned and set men to work on three V-shaped "fleches"—built from fence rails and placed to cover the exposed area between the end of the breastwork and the start of the rail fence (which was a hundred yards to the rear of the breastwork). General Putnam had even found two cannon, abandoned by the American artillerymen near Bunker Hill, and had ordered some infantrymen to drag the pieces back and place them near the "fleches."

Suddenly they were ready. What had been a hopelessly undermanned and spotty defense was suddenly a nearly solid line, bristling with men, guns at the ready, waiting for the great test of amateur soldier against the professionals.

It was about two-thirty now. The British troops had landed at Morton's Point and were forming up for their attack. General Howe had made his own decisions. He would not, as popular myth has it, send his men stupidly across open terrain in a routine frontal assault. Frontal assaults were too suicidal, too prone to heavy casualties for an intelligent, well-trained general to rely on when any alternative was available. And General

Howe's eye had also picked out that passageway down the beach.

It was as Colonel Stark had thought. General Howe ordered his ten companies of light infantry to form in a tight column and go racing down that narrow strip of beach. The first few ranks would probably be shot, but if the charge was made with speed, courage, and determination, surely over 300 men were bound to overrun a stubby stone wall manned by a few amateur soldiers with inaccurate, slow-loading muskets.

Meanwhile General Pigot would mount a diversionary attack on the other flank, sending the Marines and the 47th regiment into the space between Charlestown and the redoubt—threatening to break into the fortified position from this direction. Pigot would also direct the 38th and 43rd regiments in a gradual advance on the redoubt itself.

General Howe would lead the main British assault, with the 5th and 52nd regiments in an attack against the rail fence and the breastwork. They would let the light infantry go in first—and then shove home their attack while the light infantry was disrupting the entire American position.

With drums rolling and fifes playing merrily away, the lines started their inexorable movement ahead. The Americans could do little but watch them approach. The defenders were woefully short of ammunition—and they dared waste no shot until their targets were well within range.

General Howe didn't want to push his regulars. He was content that their advance should appear a steady, invincible procession. Let the amateurs sweat a little. But most of all, Howe wanted to delay until his massed column of light infantry struck with lightning rapidity, overwhelmed the few defenders at the improvised stone wall, and broke through to cut the enemy off from the rear.

Though they could not see what was happening down on the beach, a wild shout let Howe and his troops know that the light infantry column had closed and were in the last few yards of their attack. There was a roar of musket fire. It would be bad—but in a moment they would be through. Then a second and third roar of gunfire followed the first. What was happening there? Were they through? Were the Americans scrambling with empty muskets to escape those bayonets flashing in the sun?

Not with Colonel Stark running the show. As the light infantry had poured down that narrow strip of beach, he had kept tight control of his men, not letting them fire until the British were almost on them. Then when they fired there was a tremendous volley and the leading ranks were cut down as if by a giant scythe.

But they were professional soldiers. They wavered but did not break. Thinking they were now charging into empty muskets, they rushed on.

But Colonel Stark had been way ahead of them. On the narrow strand of beach it wasn't necessary for all of his men to fire in each volley to cut down the leaders. As soon as the first rank of Americans had fired they were replaced by a second, and then a third rank. There was no respite. Experienced troops or not, no one could withstand such a storm of lead. The British light infantry wavered, broke, and ran—some of them all the way back to their boats. They left ninety-six of their number dead or dying on the beach.

When General Howe learned of the failure of his light infantry, he knew he was in for it. He could not stop now, could not give these amateurs such an easy victory. There was no other choice. He had to ram home his own frontal attack. High casualties or not, these rebels must be made to see what they were up against.

The long lines of redcoats continued their advance. On the British left, where Pigot was mounting the feint against the Charlestown side of the redoubt, the troops advanced slowly, harassed by fire from those Americans concealed in buildings or behind walls. No matter. The real attack would be thrown in by Howe's troops on the right—led by the grenadier companies, their ranks filled with the tallest of the soldiers, made more frightful by the grenadier hats that towered above them.

Stark had warned his men not to shoot until the advancing ranks were close enough for the ammunition-short Americans to make every shot tell. They were told to shoot low—and to aim first of all for the men with the shoulder straps. Eliminate the officers first, he told them, and the men will have trouble re-forming.

Closer the awesome redcoated ranks came, clambering over the last stone wall in their way. Then again there was a blast from hundreds of rifles. The British lines were thinned. They stopped and fired, loaded and fired again. But great blasts of musket fire were tearing at them as they stood in the open. The Americans, most of their bodies concealed behind their hay-stuffed fence rails, suffered few casualities and continued to load and fire. First the grenadiers and then the regulars behind them were falling in great masses, leaving huge gaps in their line. Many officers were down—though Howe himself seemed to lead a charmed life, there in the midst of the fire.

Finding the attack on the beach routed and the grenadiers and regulars decimated and stopped, Pigot halted his feint on the right flank. The entire line had to fall back to reform.

The Americans were ecstatic. Some leaped over the rail fence to pursue–but cooler-headed officers called them back. The amateurs had stopped the awesome assault of the British regulars. But the few veterans among the Americans knew it wasn't over. Those regulars would be back.

Indeed they would. In a few short minutes Howe had his lines reformed and once again ready to assault. No more troops would be wasted on the beach this time. All available troops would be in line, from the grenadiers, the remaining light infantry, and the regulars of the 5th on the right to the Marines on the left. General Pigot's troops would advance to take the redoubt; the troops under Howe would attack the rail fence and the breastwork.

This time the regulars knew it would be no easy rout of frightened amateurs. But they advanced gamely toward those muskets waiting behind the rail fence, the breastwork, and the walls of the redoubt. Once again the Americans held their fire, waited until their enemies were perfect targets a few feet away. Then again the blasts ripped up and down the line, tearing gaping holes in the British formation. Howe stood among dead and wounded officers, urging the men on. It was heroic but it did no good. His men once again stood and tried to match the American fire, tried to send those damned rebels scurrying to the rear. But the British formations were dissolving more every second they stood there.

Pigot's men were having no more success against the redoubt. Prescott's defenders met the attacking regulars with a steady fire. Still they came on. Then Prescott had his men hold their fire this time while the redcoats advanced to within thirty feet. Suddenly a sheet of flame erupted from the redoubt. The British lines, staggered, then slowly fell back.

The Americans had held on every side. Could it be that such rank amateurs would be able to hold their position against the best the British regulars

could throw against them?

But there were a few hints of trouble to come. Ammunition, for one thing. It was getting very low, and promised resupply was nowhere in sight. American casualties had again been few, and their leadership was intact. But where were the reinforcements that had been promised—had indeed actually been ordered forward?

Many were milling about on the mainland side of the Neck, afraid to run the gauntlet of cannon fire. And those who did get across rarely got beyond Bunker Hill, where hundreds of men milled about or clung to the ground. Almost all work on the fortification of the hill position had ceased. The gallantry of the forward troops had been almost past belief—but it couldn't get those hundreds in the rear area forward to lend a hand in writing a noble finish to the action.

Many British officers were hoping Howe would now give the attack up. Losses had been far greater, in relation to the number of troops involved, than in any battle in recent British history. But Howe felt he must try at least once more. So he sent word to General Clinton to forward reinforcements. Clinton not only did so (sending the 63rd Regiment and a second marine battalion) but came himself.

The next attack was a longer time getting ready. Howe waited for the reinforcements, meanwhile getting as many of the wounded as possible started back to Boston. And there were plenty of those.

Howe this time decided to change his tactics—the attack would still have to be a frontal one; there was no other way open now. But the weight of the blow would be shifted to the left. It was hoped Pigot would be able to break into the redoubt on the Charlestown side. Howe, meanwhile, would only feint at the rail fence and then turn in toward the redoubt at the spot where the fence and the breastwork were separated by an area of over a hundred yards—the fence being that far to the rear of the breastwork.

So once again they were in motion, Pigot's men pushing ahead while the town of Charlestown, set afire some time before, blazed away on their left and rear. Scattered Americans who had been in the town still clung to cover of any sort and sniped at the attackers. But these defenders now were few and had to retreat as the British lines approached them. It wasn't long before these small parties had ceased to hold back the flow. The British lines were now closing on the redoubt.

On the other flank, part of Howe's men feinted at the rail fence, keeping the attention of the defenders, while others turned in toward the flank of the breastwork.

Still Prescott's men held on in the redoubt. But their ammunition was now not merely in short supply—many defenders had already fired their last round. Still they held on, while those who had any ammunition left fired away. Others resorted to breaking open a few leftover artillery charges for the powder.

But the British were now at the ditch, where the defenders who did have a loaded musket could not easily fire at them. Still the defenders of the redoubt did not retreat, even as the redcoated soldiers were climbing the walls and jumping down into the crowded inner space.

There followed a brief but vicious struggle of bayonet against slugging musket butt. The inside of the redoubt was so filled with smoke and dust that it was hard to tell friend from enemy.

Prescott knew it was now hopeless to stay. Redcoated soldiers were entering from all sides, were pouring around the redoubt to get behind it. There was only

one thing to do—let those who could get out save themselves while they could.

It is surprising how many did make it to the narrow exit. They poured out in a disorganized mob and most of the men started back toward Bunker Hill. They had one piece of good luck. As they exited, British soldiers were closing up on the rear from both sides and the Americans fled between them. The British could not fire for fear of hitting their own men only a few feet away, coming up from the other direction.

Another act of courage helped. Dr. Warren, fighting like a demon, inspired a few men to stay behind with him and fight on. Amazed at this foolhardly obstinacy, the redcoats had to stop and fire a full-scale volley to blast away this little group. Dr. Warren and others were killed—but the delay had given the retreating Americans time to get out of effecive range.

The escape of the defenders of the redoubt was also aided by those men who had stayed at the rail fence. Colonel Stark, when he saw the redoubt had fallen, cooly kept his men in hand, ordering them to retreat slowly, firing as they went. It was a retreat, but it was no rout. Other pieces of regiments, arriving too late to save the redoubt, helped form a rear guard. They were a welcome addition, for unlike many of the men who had fought so long and hard at the rail fence, these new arrivals were well supplied with ammunition. All the way back to Bunker Hill, this rear guard kept the semblance of a formation, holding back the attacking British and making possible an orderly retreat.

But there was no stopping at Bunker Hill. The hundreds of soldiers who had been watching from there scampered back across the Neck to relative safety. Then came the men from the redoubt, and finally the gallant defenders of the rail fence. Colonel Stark's men held together until they were back across the Neck, while the British regulars swarmed up and over Bunker Hill.

It was a victory, of a kind. But it was the kind of victory the British leaders would hope never again to see.

The Americans at first were despondent at their apparent failure. It was only later, as they learned more of what havoc they had created in the orderly formations of the British regulars, that they could begin to see how positive were the results of their desperate ninety-minute struggle.

For they had accomplished their purpose: the carefully planned full-scale assault of the British on the entire American position, scheduled for the very next day, had to be abandoned. Then there were the tremendous casualties suffered by the British. Of a little over two thousand men committed to battle, the British lost 1,054 killed and wounded. An expected rate of battle casualties for the British army at the time was one in eight. They had here lost almost fifty percent of their force.

The Americans had not come off scott free. They had lost 441 men killed, wounded, and captured. But the amateur soldiers had withstood the mighty charge of the British regulars twice—and might have withstood it again if their ammunition had not run low.

The British professionals had the hill—for what it was worth. But never again would a British commander throw his men against prepared and well dug-in American troops with reckless abandon. It was now a hard and bloody business, and neither General Howe nor General Clinton, when each in turn had succeeded to the top command post in the colonies, could ever put that bloody ninety minutes out of his mind. It would haunt them, make them cautious when boldness might have served them better. These amateurs, they had taken on the professional soldiery of the British

Empire—and somehow had stayed and fought until the professionals had been taught a lesson they would never forget.

And as dusk closed around the Charlestown peninsula that evening, young Captain Dearborn, novice soldier and Johnny-come-lately battle leader, knew that he had passed his first test of fire. What he could not know then was that many years later, when John Stark had become the last living general of the Revolution, the young amateur captain would have himself risen to command, under the President, the entire military force of the fledgling nation.

## Sources

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## GLOSSARY

**ABORT**: The cancellation of orders so that OP costs for movement caused by those orders are recovered. The only orders which may be cancelled are those which have been given to the currently accessed unit since its most recent access. Where a game is played with hidden units and where the currently accessed unit has moved to uncover a hidden unit, there is a 4 OP cost for this uncovering that is not recovered by aborting the orders.

**ACCESS**: To take control of a unit so that it may be given orders.

**ACTIVATED**: Units which may be accessed and moved. Units which are not activated may be given Fire orders and may have their Facings and Formations changed. Units which are not activated may not be moved. Appears in the Bunker Hill and Saratoga Battles.

**ADV**: Advance.

**ADVANCE**: The movement of a unit into an adjacent square which that unit's fire/melee attacks have forced an enemy unit to retreat from during the preceding fire or melee phase. This movement occurs during the Advance Phase. Units receive an Efficiency bonus when they advance and there is no OP cost for this movement.

**ADVANCE PHASE**: Combat sub-phase which follows the Retreat Phase and precedes the Melee Defender's Fire sub-phase and the Recovery/Rally Phase. The sub-phase when advances are conducted.

**AMMO**: Ammunition.

**AMMUNITION**: An abstract measure of the supplies needed for a unit to fire its weapons. Each time a unit fires in offensive, defensive, or melee fire, it spends one point of this supply. Ammunition is only a factor in the ADVANCED GAME.

**ARMY**: The highest level of organization for combat units. An army is made up of corps. Also a term used to refer to all combat forces of a side.

**ATTACKER**: The player (or his units) whose Operation Phase preceded the current combat phase. The phasing player or that player's units.

**ATTACKER'S ARTILLERY FIRE PHASE**: The combat sub-phase in which the phasing player's artillery units deliver their normal fire.

**ATTACKER'S FIRE PHASE**: The combat sub-phase in which the phasing player's infantry and cavalry units deliver their normal fire.

**BATTALION**: The lowest level of organization for combat units. Two or more battalions make up a regiment.

**BREASTWORKS**: Prepared defensive positions which give a combat advantage to any units which occupy them. Similar to fortifications except that they are not constructed by a unit during the game, give offensive and defensive benefits to all units in the square, and may be occupied by different units during the course of a game.

**BRIGADE**: A level of unit organization between a regiment and a division. Brigades are made up of two or more regiments.

**CARBINE**: A short, smoothbored firearm carried by cavalry units.

**CC**: Command Control.

**COLUMN**: An infantry formation that gives better mobility and melee strength, but more vulnerability to fire attacks. Used in the INTERMEDIATE and ADVANCED Games only.

**COMBAT**: The process of resolving fire and melee orders that results in casualties, retreat, disruption, and rout. Occurs during the combat phase.

**COMBAT PHASE**: A phase which follows every Operation Phase and precedes each Recovery/Rally Phase.

**COMMAND CONTROL**: An abstract measure of the amount of influence commanders have over their subordinate units. Partially determines how far a unit

will be able to move and its ability to engage in combat.

**COORDINATES**: The X,Y address of each square on a game map.

**CORPS**: A high level of unit organization between a division and an army. Corps consist of two or more divisions.

**CRB**: Carbine.

**CURSOR**: The white rectangle that may be moved about the screen by the player.

**DEFENDER**: The player (or his units) whose Operation Phase did not precede the current Combat Phase. The non-phasing player and his units.

**DEFENSIVE FIRE**: Any fire by the non-phasing player's units delivered during a Combat Phase.

**DEFENDER'S FIRE PHASE**: The combat sub-phase when the non-phasing player's infantry and cavalry units deliver their normal fire.

**DEFENDER'S ARTILLERY FIRE PHASE**: The combat sub-phase when the non-phasing player's artillery units deliver their normal fire.

**DIR**: Direction.

**DIRECTION**: Generally refers to the facing of a unit in the INTERMEDIATE and ADVANCED Games. There are 8 directions in the game which correspond to the North, Northeast, East, Southeast, South, Southwest, West, and Northwest directions on the map. These are represented by the numbers 1-8 (or 1-4/6-9) on the player's keyboard. Direction is stated as a number. Each number's direction depends on its position on the Movement Compass in relation to the center of the compass.

**DISMOUNTED**: A cavalry formation in which the unit has less mobility but more fire power. Used in the INTERMEDIATE and ADVANCED Games only.

**DISRUPTED**: A condition which leaves a unit unable to function offensively and with reduced defensive abilities. Units may become disrupted as the result of combat in the INTERMEDIATE and ADVANCED Games.

**DIVISION**: A level of unit organization between a brigade and a corps. Divisions are made up of two or more brigades.

**DOUBLE TIME**: An option which permits a player to increase a unit's Operation Points by also increasing its Fatigue. Available in the INTERMEDIATE and ADVANCED Games only.

**DS**: Disrupted.

**EFFICIENCY**: An abstract measure of a unit's ability to carry out its operations. Efficiency is decreased by casualties and increased by resting away from enemy units. Efficiency affects morale and combat.

**EFF**: Efficiency.

**ELEVATION**: A measure of a square's height in relation to other squares. Units which occupy a square with a higher elevation than that occupied by enemy units they are engaging in combat have an advantage.

**FACING**: The direction in which the front of a unit is pointed. INTERMEDIATE and ADVANCED Games only.

**FATIGUE**: An abstract measure of how tired a unit is. Units acquire Fatigue when they carry out most orders. Fatigue is lost when units are rested away from the enemy. Fatigue affects Morale.

**FIRE**: Non-melee combat which results from shooting a unit's weapons into an enemy-occupied square. Also used to indicate the X,Y coordinates of a square a unit has been ordered to fire into.

**FORMATION**: The physical arrangement of the men or guns in a unit. Typically units have one formation which gives them greater mobility and another formation which gives them greater fire power. The mobility formations are column for infantry, mounted for cavalry, and limbered for artillery. The fire power formations are line for infantry, dismounted for cavalry, and unlimbered for artillery. Routed may also be considered a formation. Applies in the INTERMEDIATE and ADVANCED Games.

**FORTIFICATION**: The defensive im-

provement of a terrain square by a unit in that square. The defensive advantages of a fortification apply only to the unit which built it and only until that unit exits that square.

FT: Fatigue

GUNS: Artillery pieces. The type and number is a measure of the combat strength of an artillery unit.

HIDDEN UNITS: Units which are not visible to the opposing player. Occurs only when the Hidden Units Option (E) is selected in the Main Menu. Units are hidden when not in the Line of Sight of an opposing unit or when in concealing terrain (such as woods) as long as they have not fired or do not have an opposing unit adjacent to them.

ICONS: Graphic shapes which look like the units they are intended to represent. Used automatically to represent units in the BASIC GAME. Not recommended for use in the INTERMEDIATE and ADVANCED Games because they do not show facing or formation.

LEADER: ADVANCED GAME only. A semi-abstract unit that represents an individual commander who was present at a battle. There is no separate symbol for a leader. Leaders are always attached to a unit and move with the unit to which they are attached. Leaders impart combat bonuses to the units they are attached to. The Command Control of units in the ADVANCED GAME is largely dependent on leader bonuses and the distance units are from their leaders during the Command Control Phase.

LIMBERED: The artillery formation which permits it to move. When artillery is retreated, it is automatically put into limbered status. INTERMEDIATE and ADVANCED Games only.

LINE: An infantry formation which gives it greater fire power but less mobility. INTERMEDIATE and ADVANCED Games only. Also refers to the placement of units to present a contiguous or near contiguous front (a defensive line, a line of battle, etc.).

LINE OF FIRE: The ability to fire into a square. A unit may only fire at enemy units that it can see and which are within its weapon's maximum range. Intervening enemy or friendly units may block the Line of Fire.

LINE OF SIGHT: The ability to see into a square.

LOF: Line of Fire.

LOS: Line of Sight.

MEL: Melee.

MELEE: A type of close quarters combat that occurs during the melee sub-phase of the Combat Phase and which may include hand-to-hand fighting. Melee can only occur between adjacent units. Partially due to Melee Defender's Fire, melee typically results in more casualties than regular fire combat.

MELEE DEFENDER'S FIRE: A special fire phase delivered by the defending units just prior to receiving a melee attack. This fire is in addition to normal Defensive Fire. This fire is 50 percent more effective than normal defensive fire. This fire may be delivered by units which may not ordinarily fire: out of ammunition, routed, disrupted, in column or limbered formation, out of OP, flanked, etc.

MELEE PHASE: The combat sub-phase in which melee attacks are resolved.

MEN: The number of combatants in a unit. A measure of the combat strength of infantry and cavalry units. A modifier of the combat strength for artillery units. The defensive strength of artillery units in melee (not Melee Defensive Fire).

MENU: A list of two or more options a player may execute at a given time. Players are said to be in a menu when they can choose to select that menu's options.

MORALE: An abstract measure of the fighting spirit of a unit. Morale is equal to Efficiency minus Fatigue. Influences the OP a unit receives and its ability to suffer losses without routing.

**MORTAR**: An extremely stubby, short barreled, smoothbore artillery piece with a very high fire trajectory. Used for lobbing explosive shells over walls, breastworks, and other defensive obstacles. Difficult to move.

**MOUNTED**: The cavalry formation that provides melee bonuses and greater mobility at a cost in fire power. Used in the INTERMEDIATE and ADVANCED Games only.

**MOVEMENT COMPASS**: The square made up of 8 numbers that appears in the bottom right corner of many screens. The numbers are arranged so that pressing a number key will cause the cursor or accessed unit to move in the direction that number lies from the center of the compass. The number which appears after the DIR: designation for an accessed unit in the INTERMEDIATE and ADVANCED Games is that unit's facing as shown by the direction that number lies from the center of the Movement Compass.

**MRL**: Morale.

**MSK**: Musket.

**MTR**: Mortar.

**MUSKET**: A shoulder fired, smoothbored firearm. The main armament of infantry units in the game.

**NO FIRE**: Shows that the accessed unit has been ordered to not fire. Units with this order will only fire if adjacent to an enemy unit during a fire phase.

**NO PLOT**: Shows that the selection of fire target for the accessed unit has been left up to the computer.

**OB**: Order of Battle.

**OFFENSIVE FIRE**: Any fire delivered by units whose Operation Phase preceded the current Combat Phase. Any fire by the phasing player's units.

**OP**: Operation Points.

**OPERATION PHASE**: The phase in which a player may move his units and give them orders. Precedes the Combat Phase.

**OPERATION POINTS**: The points which are required for a unit to carry out most activities in the game. Points are spent in the execution of various orders and procedures. Units are generally not permitted to do things unless they can pay the Operation Points costs for them. Operation Points are determined during each turn's Command Control Phase and awarded to units during their Recovery/Rally Phases.

**ORDER OF BATTLE**: The organization of units for a battle. Includes chain of command, unit numbers, and starting Efficiency. Provided in the special rules section for each battle.

**OVERSTACK**: A condition where the normal stacking limits for a square are temporarily exceeded. May be caused by the movement of Mounted Cavalry and of infantry in column formation. May occur during the Retreat/Advance Phase by retreating/routing units. Reinforcement units which enter the game overstacked may remain overstacked until they move.

**PHASE**: A sub-division of a turn in which different actions are carried out by the players or by the computer. Some phases apply to both players equally (Command Control, Reinforcement, and Victory Determination), some apply to only one player (Operation and Recovery/Rally) and some apply to both but with emphasis on the player whose phase it is (Combat).

**PHASING PLAYER**: The player whose Operation Phase it is, whose Operation Phase preceded the current Combat Phase, or whose Recovery/Rally Phase it is.

**PLAYER**: A person who gives orders to units in the game.

**RALLY**: Recover from Rout. Can occur only to the routed units of the phasing player during his Recovery/Rally Phase. Only those units which have a Morale of 25 or more have a chance to Rally.

**RECONNAISSANCE**: A function available in the Cursor Menu of the INTERMEDIATE and ADVANCED Games only. Permits the phasing player to receive an

estimate of the number of enemy men in a square.

**RECOVERY/RALLY PHASE**: Follows every Combat Phase. The phasing player's units receive their Operation Points and recover from the effects of combat, lower their Fatigue, and increase their Efficiency during this phase.

**REDOUBT**: A special type of breastwork that appears in the Bunker Hill scenario only. INTERMEDIATE and ADVANCED Games only: The Redoubt protects the units which occupy it from suffering added casualties from fire delivered into their flanks (eliminates attacker bonus). Occupying units may not deliver normal fire through their flanks and incur normal Melee Defensive Fire penalties for being flanked.

**REINFORCEMENT**: A unit or units which are not on the game map at the start of the game but which arrive during a subsequent Reinforcement Phase.

**REINFORCEMENT PHASE**: The second phase of each turn when reinforcing units arrive on the game map.

**RETREAT**: An involuntary movement away from the enemy that comes as the result of combat. Attacking units retreat one square. Defending units retreat three squares. There is an Efficiency loss, but no OP cost, for retreating.

**RETREAT PHASE**: The combat subphase in which retreats are conducted. There are two per Combat Phase: one following the Offensive Fire Phase and one following the Melee Phase.

**RFL**: Rifle.

**RIFLE**: A shoulder fired, rifle-barreled firearm, carried by certain select infantry units. Much more accurate than a musket but with a slower rate of fire.

**ROUT**: The collapse of the will to fight of a combat unit. Characterized by wild retreat, refusal to fight offensively, and a lowering of the combat Efficiency of surrounding friendly units.

**SAVE**: Storing a game in progress so that it may be played at a future time. Games are frequently saved at different times during play to permit the player to go back and try different gaming strategies.

**SIDE**: In SOL, there are two sides: the British and the Americans. There may be more than one player per side. Players who command forces of the same nationality are on the same side. Players who command forces of different sides are opposing players.

**SIX POUND GUN**: A smoothbored field artillery piece which fired a solid iron projectile weighing approximately six pounds. Also capable of firing explosive shells and canister/grape shot-type ammunition. Considered sufficiently mobile for use on a field of battle.

**STACKING**: The placing of more than one unit in a square. Normal stacking units may be temporarily exceeded (overstack) during movement and the Retreat Phase. Reinforcement units may exceed normal stacking limits when they enter the map. They do not have to meet normal stacking limits until they move.

**STRATEGIC MAP**: One of two game map modes which may be shown on the monitor screen. The Strategic Map shows a larger portion of the playing area, but in less detail. The game may be played entirely on the Strategic Map.

**STRATEGY**: The over-all plan for a battle.

**SYMBOLS**: Abstract, visual representations of the playing units. The shape of the symbols change to show a unit's facing and formation. Recommended for use in the INTERMEDIATE and ADVANCED GAMES.

**TACTICAL MAP**: One of two game map modes which may be shown on the monitor screen. The Tactical Map shows a smaller section of the overall playing area, but in greater detail. The game is normally played on the Tactical Map. The game may be played entirely on the Tactical Map.

**TACTICS**: The plans and manuevers used to execute strategy. The plans for obtaining limited goals which are part of

the overall game goals.

**TERRAIN**: The type of "ground" which exists in a square. May include woods, villages, roads, ravines, etc.

**THREE POUND GUN**: A small, smoothbored field artillery piece. Small and highly mobile, the gun fired a solid iron ball that weighed approximately three pounds. Also capable of firing explosive shell and canister/grape shot-type ammunition.

**TURN**: The major subdivisions of a game. Made up of phases, each turn represents one hour of real time in the game. Each turn consists of four player phases (two for each side consisting of the Operation, Combat and Recovery/Rally Phases) and three phases common to both sides (the Command Control, Reinforcement, and Victory Determination Phases).

**TWENTY-FOUR POUND GUN**: A smoothbored siege gun which fired a solid iron ball weighing approximately twenty-four pounds. Not considered sufficiently mobile for use in a fluid battle situation, designed for use in sieges against fixed fortifications where its heavy fire could be used to batter down walls, redoubts, etc. Also fired explosive shells and canister/grape shot-type ammunition.

**TWELVE POUND GUN**: A heavy, smoothbored field artillery piece which fired a solid iron ball that weighed approximately twelve pounds. Somewhat difficult to move, it had a longer effective range and more firepower than the smaller field artillery pieces. It fired explosive shell and canister/grape shot-type ammunition as well.

**UNIT**: A "playing piece". Either a battalion, regiment, brigade, or battery depending on the unit type and battle. The command organizations a player moves and gives orders to.

**UNLIMBERED**: The artillery formation which permits guns to fire, but leaves them immobile.

**VICTORY DETERMINATION PHASE**: The game phase in which victory points are totalled and displayed. The final Victory Determination Phase determines which side wins a game (assuming there is a winner).

**VICTORY POINT**: The unit of measure that is totalled to determine which side wins a game. Victory points are awarded for inflicting casualties on the enemy and for the control of Victory Squares.

**VICTORY SQUARE**: Squares which award victory points to the side which controls them. Victory Squares are different for each scenario. To control a Victory Square, a side must occupy the square and have 400 men in or adjacent to it with no enemy men in or adjacent to it. Some Victory Squares can give points to either side in a scenario and some can give points to one side only.

**WEAPON**: The armament of a unit. For infantry, the main armament was the musket with some units carrying rifles. For cavalry, the main armament was the carbine. For artillery, the armament was the gun (artillery piece or cannon).

**WING**: The temporary organization of two or more divisions under a commander for a battle. Similar to a corps, but not a permanent organization.

**ZONE OF CONTROL**: The influence exerted by a unit into the squares around it. Zones of Control act to impede enemy movement and increase the casualties suffered by retreating and routing units. A unit exerts a Zone of Control into all adjacent squares.

**ZOC**: Zone of Control.

**3PD**: Three Pound Gun.

**6PD**: Six Pound Gun.

**12P**: Twelve Pound Gun.

**24P**: Twenty-four Pound Gun.

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